DISTRIBUTION SHEET

To Characterization Equipment	From Structural Integrity Assessment	Page 1 of 1 Date 11/2/94
Project Title/Work Order STRESS ANALYSIS OF SHIELDED RECEIVER LIFTING FRAME FOR CORE SAMPLER TRUCK #2 (WHC-SD-WM-ER-390, Rev. 0)		EDT No. 609355 ECN No.

Name	MSIN	Text With All Attach.	Text Only	Attach./Appendix Only	EDT/ECN Only
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ENGINEERING DATA TRANSMITTAL

Page 1 of 1
1. EDT 609355

2. To: (Receiving Organization) Characterization Equipment	3. From: (Originating Organization) System Structural Integrity Assessments	4. Related EDT No.: N/A
5. Proj./Prog./Dept./Div.: Tank Farms	6. Cog. Engr.: H. H. Ziada	7. Purchase Order No.: N/A
8. Originator Remarks: For review and approval		9. Equip./Component No.: N/A
		10. System/Bldg./Facility: 200 Area Tank Farms
11. Receiver Remarks:		12. Major Assm. Dwg. No.: H-2-91715, H-2-91716
		13. Permit/Permit Application No.: N/A
		14. Required Response Date: 9/27/94

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(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Impact Level	Reason for Transmittal	Originator Disposition	Receiver Disposition
1	WHC-SD-WM-ER-390		0	Stress Analysis of Shielded Receiver Lifting Frame for Core Sampler Truck #2	Q	1	1	

16. KEY					
Impact Level (F)		Reason for Transmittal (G)			Disposition (H) & (I)
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18. <i>H. H. Ziada</i> H. H. Ziada Signature of EDT Originator Date 10-24-94	19. <i>R. J. Blanchard</i> R. J. Blanchard Authorized Representative Date 10/27/94 For Receiving Organization	20. <i>K. V. Scott</i> K. V. Scott Cognizant/Project Engineer's Manager Date 11-2-94	21. DOE APPROVAL (if required) Ltr. No. N/A ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments
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Document Number: WHC-SD-WM-ER-390, REV. 0

Document Title: Stress Analysis of Shielded Receiver Lifting Frame
for Core Sampler Truck #2

Release Date: 11/03/94

This document was reviewed following the
procedures described in WHC-CM-3-4 and is:

APPROVED FOR PUBLIC RELEASE

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11/03/94

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SUPPORTING DOCUMENT		1. Total Pages 269
2. Title Stress Analysis of Shielded Receiver Lifting Frame for Core Sampler Truck #2	3. Number WHC-SD-WM-ER-390	4. Rev No. 0
5. Key Words sampler truck, shielded receiver, stress analysis APPROVED FOR PUBLIC RELEASE	6. Author Name: H.H. Ziada <i>Hasan H. Ziada</i> Signature Organization/Charge Code 7E650/N4XB1	
7. Abstract <i>11/3/94 D. Soler</i> This document provides the structural analysis and evaluation of the shielded receiver lifting frame for the rotary mode core sampler truck #2		
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INDEPENDENT REVIEW

Document Reviewed STRESS ANALYSIS OF SHIELDED RECEIVER LIFTING FRAME FOR CORE
SAMPLER TRUCK #2

Authors L. L. Hyde Document No. WHC-SD-WM-ER-390, Rev. 0 EDT No. 609355
B. J. Niemi
F. R. Vollert

The subject document has been reviewed by the undersigned. The reviewer reviewed and verified the following items as applicable [EP.4.1, Rev. 5].

- Engineering Specification
- Design Input
- Basic Assumption
- Approach/Design Methodology
- Related Information
- Conclusion/Result Interpretation

Hassan H. Zaidi
Reviewer

10-24-94
Date

STRESS ANALYSIS OF SHIELDED RECEIVER LIFTING FRAME FOR CORE SAMPLER TRUCK #2

1.0 INTRODUCTION

This analysis evaluates the structural design adequacy of the shielded receiver lifting frame (SRLF) for the rotary mode core sampler truck number 2 (RMCST#2). The analysis considers the loads expected during operation of the SRLF.

Most of the existing welds were not in conformance with those specified on the drawings, H-2-91715 and -91716 (RHO 1988a and RHO 1988b). Stress analysts and engineers examined the configuration of the welds connecting the frame members of the SRLF and those connecting the SRLF to the drill rig. In comparison to those shown on the drawing, some of the actual welds appear stronger and others undersized. For example, the actual fillet welds completely encircle the junctures of members, although the drawings show some welds to be on two sides only. Attempts to find the original design calculations were unsuccessful.

To resolve the nonconformance, the critical welds were identified by analysis and subsequently inspected to ensure they are as large or larger than the minimum size needed to support the operating loads. A critical fillet weld is defined by weld leg size. A required weld size, as determined by stress analysis, of 0.1 inch or larger is considered to be critical. This size was selected because no existing welds were found to be less than 0.125 inch.

Analysis results led to weld modifications to strengthen the SRLF. The weld modifications performed are described in WHC 1994.

2.0 CONCLUSIONS AND RECOMMENDATIONS

Results of the analysis of the SRLF for operating loads show acceptable stresses in the members and the connecting welds when the weld modifications described in WHC 1994 are incorporated. The evaluation was performed in accordance with AISC 1989.

3.0 MATERIALS AND ALLOWABLES

Drawing H-2-91716 (RHO 1988b) specifies either ASTM A36 or ASTM A500 Grade B for the tubes, and ASTM A36 for plates and other components. The fillet weld material is E70XX.

The stress results of this analysis were evaluated in accordance with the design stress limits set out in AISC 1989.

3.1 ASTM A36 ALLOWABLES

For conservatism, all structural materials are considered to be ASTM A36 carbon steel (ASTM 1989):

Ultimate tensile strength, F_u	= 58,000 lbf/in ²
Yield strength, F_y	= 36,000 lbf/in ²
Allowable tensile stress, F_t	= $0.6 F_y = 21,600$ lbf/in ²
Allowable bending stress, F_b	= $0.66 F_y = 23,760$ lbf/in ²
Allowable shear stress, F_v	= $0.4 F_y = 14,400$ lbf/in ²

3.2 E70XX WELD ALLOWABLES

The fillet welds are designed mainly for shear strength (AISC 1989 and AWS 1992).

Ultimate tensile strength, $F_{uw} = 70,000$ lbf/in²

Allowable shear stress, $F_{sw} = 0.3 F_{uw} = 21,000$ lbf/in²

The allowable shear stress for fillet welds are reduced according to the minimum throat dimension.

Fillet weld allowable shear stress as a function of fillet weld size,

$$\begin{aligned} F_s &= 0.707 F_{sw} \\ &= 14,847 \approx 14,800 \text{ lbf/in}^2 \end{aligned}$$

4.0 CONFIGURATION AND LOADING

The configuration of the SRLF shown in Figures 1, 2, and 3, was obtained from drawings H-2-91715 and H-2-91716 (RHO 1988a and RHO 1988b).

The operating loads on the SRLF are those imposed by the sampler hoist box assembly and base plate (2,100 lbf) and the sampler hoist tube section (900 lbf). The locations of these loads are shown on Figure 1.

5.0 STRESS ANALYSIS

The analysis used the Images Finite-element Code (Images 1990) to determine the loads at the connections and the stresses in the members. The analysis considered both the raised and lowered positions of the support frame. Each position was analyzed for two different restraint conditions of member 13 relative to the drill rig. In the first case, member 13 does not carry torsional loads and in the second case it carries torsional loads. The loads at the connections were used to calculate the stresses in the welds and to determine the weld size at each connection. Details of the finite-element models and analyses results of the four cases appear in Appendix A. Details of the weld evaluation appear in Appendix B. The weld analysis followed the line analysis method of Blodgett (1982). Table 1 summarizes the stresses and required weld sizes determined by the analysis.

6.0 REFERENCES

- AISC, 1989, *Manual of Steel Construction, Allowable Stress Design*, Ninth Edition, American Institute of Steel Construction, Chicago, Illinois.
- ASTM, 1989, *Annual Book of ASTM Standards*, American Society for Testing and Materials, Philadelphia, Pennsylvania.
- AWS, 1992, *Structural Welding Code-Steel*, ANSI/AWS D1.1-92, American Welding Society, Miami, Florida.
- Blodgett, O. W., 1982, *Design of Welded Structures*, James F. Lincoln Arc Welding Foundation, Cleveland, Ohio.
- Images, 1990, *Interactive Microcomputer Analysis and Graphics of Engineering Systems, IMAGES-3D*, Version 2.0, Celestial Software Inc., Berkeley, California.
- RHO, 1988a, *Shielded Receiver Lifting Frame Instl. Core Sampler Truck*, Drawing Number H-2-91715, Rev. 8, Rockwell Hanford Operations, Richland, Washington.
- RHO, 1988b, *Shielded Receiver Lifting Frame Assembly Core Sampler Truck*, Drawing Number H-2-91716, Rev. 5, Rockwell Hanford Operations, Richland, Washington.
- WHC, 1994, *Rotary Mode Core Sampling Truck #2, Nonconformance Report*, NRC 052905, Westinghouse Hanford Company, Richland, Washington.

Figure 1: Shielded Receiver Lifting Frame Assembly.

Figure 2: Shielded Receiver Support Frame Assembly.

Figure 3: Shielded Receiver Fixed Support Frame Assembly.

TABLE 1: STRESS AND WELD SIZE RESULTS

Location ⁽¹⁾ (Connected Members)	Calculated Linear Force ⁽²⁾ (lbf/in)	Allowable Stress (lbf/in ²)	Required Weld Size, ⁽³⁾ tw (in)
9 to 7	344	14,800	0.023
8 to 11	202	14,800	0.014
8 to 7	149	14,800	0.010
38 to 7 (flare bevel weld)	384	21,000	0.018
31 to 7	370	14,800	0.025
10 to 7	739	14,800	0.049
10 to actuator	511	14,800	0.035
4 to 7 to 11	1,226	14,800	0.083
37 to 37 (V weld)	152	21,000	0.007
11 to 37 to 38	251	14,800	0.017
17 to roller	504	14,800	0.034
17 to 12	183	14,800	0.012
12 to 15 (flare bevel weld)	191	21,000	0.009
15 to 14	220	14,800	0.015
14 to drill rig (also dwg H-2-91715)	384	14,800	0.026
17 to 13	141	14,800	0.010
13 to drill rig (also dwg. H-2-91715)	219	14,800	0.015
17 and 18 to drill rig (dwg. H-2-91715)	1,089	14,800	0.075
17 to 17 vertical weld (dwg. H-2-91715)	636	14,800	0.043
Member 4, bending stress (lbf/in ²)	9,724 lbf/in ²	23,760 lbf/in ²	DM=1.4 ⁽⁴⁾

(1) Member or part number from drawing H-2-91716 unless otherwise specified (see Figures 1-3)

(2) Based on fillet weld line analysis method, Blodgett 1982 (Appendix B).

(3) Required weld size (tw) = $\frac{\text{calculated linear force}}{\text{allowable stress}}$

(4) Design marginal (DM) = $\frac{\text{allowable stress} - 1}{\text{calculated stress}}$

APPENDIX A

FINITE-ELEMENT ANALYSIS
OF SHIELDED RECEIVER LIFTING FRAME
FOR CORE SAMPLER TRUCK #2

CHECKLIST FOR INDEPENDENT REVIEW

Document Reviewed STRESS ANALYSIS OF SHIELDED RECEIVER LIFTING FRAME FOR CORE SAMPLER TRUCK #2

Author L. L. Hyde

Document No. WHC-SD-WM-ER-390, Rev. 0

Yes No N/A

☒	☐	☐	Problem completely defined.
☒	☐	☐	Necessary assumptions explicitly stated and supported.
☒	☐	☐	Computer codes and data files documented.
☒	☐	☐	Data used in calculations explicitly stated in document.
☒	☐	☐	Data checked for consistency with original source information as applicable.
☒	☐	☐	Mathematical derivations checked including dimensional consistency of results.
☒	☐	☐	Models appropriate and used within range of validity or use outside range of established validity justified.
☒	☐	☐	Hand calculations checked for errors.
☒	☐	☐	Code run streams correct and consistent with analysis documentation.
☒	☐	☐	Code output consistent with input and with results reported in analysis documentation.
☒	☐	☐	Acceptability limits on analytical results applicable and supported. Limits checked against sources.
☒	☐	☐	Safety margins consistent with good engineering practices.
☒	☐	☐	Conclusions consistent with analytical results and applicable limits.
☒	☐	☐	Results and conclusions address all points required in the problem statement.

MANDATORY

Software QA Log Number 94-064

H. H. Ziada

Reviewer

A-1a

10-24-94

Date

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A4. MAXIMUM STRESSES IN CRITICAL MEMBERS	A-213

A1. FINITE-ELEMENT MODELS

The Shielded Receiver Lifting Frame Assembly (Drawing H-2-91716) is installed on the Core Sampler Truck Drill Rig (Drawing H-2-91715) and supports the Shielded Receiver Assembly (Drawing H-2-83314). The Lifting Frame Assembly consists of two parts; the moveable Support Frame Assembly (P/N 1) shown in Figure A-1, to which the Receiver Assembly is attached, and the stationary Fixed Support Frame Assembly (P/N 2) shown in Figure A-14 which provides alignment for the moveable frame. The moveable frame is raised and lowered by a pair of hydraulic cylinders. During transportation it is located in the down position, facing forward, while for operation it is raised to its full up position. Both frames are constructed of standard mild steel structural shapes connected by welding.

The primary purpose of this analysis was to determine the loads in the welded joints of the two frames due to the deadweight of the Receiver Assembly and the self-weight of the frames. The secondary purpose was to determine the stresses in the frame members due to the same loading. To accomplish this, finite-element models which included both frames were generated utilizing the IMAGES-3D computer program. One model depicted the moveable frame located in the operating (up) position while the second located it in the transportation (down) position. Beam elements were used for all of the frame members. Lateral loading between the frames was accomplished with stiff linear springs located only at the roller locations which were in contact. Figures A-1 through A-20 are plots showing the geometry of the models.

The Receiver Assembly deadweight was applied as uniform loads to the movable frame forward and aft members (P/N's 4 and 9). This is shown in Figure A-21. In addition the self-weight of the frame was included by a 1 G gravity load. The boundary conditions imposed on the model included vertical restraint of the actuators and fixity at the joints between the drill rig and the Fixed Support Frame aft bracing members (P/N 14). The joint between fixed frame six-inch by four-inch tube steel member (P/N 13) and the drill rig was restrained against translation and rotation about the torsional axis of the tube for one case and only against translation in the second case. These two boundary condition cases were analyzed to provide the worst case loads for this weld joint as well as other affected joints.

The input and output for each of the two finite-elements models for each of the two boundary conditions is given in Section A2. The resulting weld joint loads are given in Section A3 and the maximum stress in the critical frame member is given in Section A4.

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
14:52:

MOVEABLE 'SUPPOLT FRAME ASSEMBLY' P/N 1
(DRAWING H-2-91716)

~~FIGURE A-1~~

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
14:21:22

~~FIGURE A-2~~

A-5

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
14:20:

~~FIGURE A-3~~

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
14:16:39

~~FIGURE A-4~~

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/9
14:18:15

~~FIGURE A-5~~

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
14:24:55

~~FIGURE A-6~~

A-9

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/9
14:25:58

~~FIGURE A-7~~

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
14:27:45

~~FIGURE A-8~~

A-11

IMAGES-3D
Ver. 2.0
Geometry Plot

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/9
14:29:47

~~FIGURE A-9~~

IMAGES-3D
Ver. 2.0
Geometry Plot

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
14:34:51

~~FIGURE A-10~~

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/9
14:36:34

FIGURE A-11

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
14:39:33

FIGURE A-12

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/91
14:38:31

~~FIGURE A-13~~

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
15: 3:16

STATIONARY 'FIXED SUPPORT FRAME ASSEMBLY' P/N 2
(DRAWING H-2-917K6)

~~FIGURE A-14~~

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
15: 5:29

~~FIGURE A-15~~

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
15:11:14

~~FIGURE A-16~~

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/91
15:17:17

~~FIGURE A-17~~

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
15:19: 6

~~FIGURE A-18~~

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/9
15:26:48

~~FIGURE A-19~~

A-22

IMAGES-3D
Ver. 2.0
Geometry Plot

WHC-SD-WM-ER-390
Rev. 0

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME
Wireframe Plot

9/26/94
15:35:46

~~FIGURE A-20~~

A-23

DESIGN CALCULATION

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDED RECEIVER LIFTING FRAME ASSEMBLY
 (8) Originator L. Hyde Date 10/5/94
 (9) Checker H.H. Zieda Date 10-21-94

(10) APPLIED LOADS

DEADWEIGHT LOADS - (-1G, Y AXIS)

MEMBER 3: BEAM 34, 42, 43 : $(18.25 \times 900 + 1.25 \times 2100) / 26.5 \times 42 = 17.12 \text{ LBS./IN}$

MEMBER 4: BEAM 37, 38, 39 : $(8.25 \times 900 + 25.25 \times 2100) / 26.5 \times 42 = 54.31 \text{ LBS./IN}$

FIGURE A-21

3D-6400-060.1 (12.87)

A2. FINITE-ELEMENT INPUT AND OUTPUT

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=	of IMAGES-3D or the users manual should	=
=	be addressed to:	=
=		=
=	Celestial Software Inc.	=
=	125 University Ave.	=
=	Berkeley, CA	=
=	94710	=
=		=
=	415-843-0977	=

=====

FKE: TRUCK UDW

DEADWEIGHT ONLY ANALYSIS WITH
-1 FRAME IN UP (OPERATING) POSITION

-2 FRAME MEMBER (13) RESTRAINED
TO DRILL RIG IN F_x , F_y , F_z & M_z
DIRECTIONS (JTS 70 & 71)

PREPARED BY L. Hyde

CHECKED BY H. H. Zick

10/18/94

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CHECK GEOMETRY

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

MATERIAL PROPERTIES

Material No	Modulus of Elasticity	Weight Density	Coeff of Thermal Exp.	Poisson's Ratio	Shear Web Modulus
1	3.00000E+07	2.83000E-01	6.33000E-06	3.00E-01	0.00000E+00
2	3.00000E+07	1.00000E-03	6.33000E-06	3.00E-01	0.00000E+00

SPRING CONSTANTS

Spring Const.	Stiffness
1	1.00000E+06

NODE COORDINATES

Node	X-Coord.	Y-Coord.	Z-Coord.
1	0.00000E+00	1.01000E+02	0.00000E+00
2	0.00000E+00	9.76250E+01	0.00000E+00
3	0.00000E+00	1.44000E+02	0.00000E+00
4	0.00000E+00	1.66000E+02	0.00000E+00
5	-9.50000E+00	1.44000E+02	-2.00000E+00
6	-2.28400E+01	1.44000E+02	-2.00000E+00
7	-2.65000E+01	1.44000E+02	-2.00000E+00
8	0.00000E+00	1.05500E+02	0.00000E+00
9	0.00000E+00	1.11000E+02	0.00000E+00
10	0.00000E+00	1.15000E+02	0.00000E+00
11	0.00000E+00	1.22000E+02	0.00000E+00
12	0.00000E+00	1.27500E+02	0.00000E+00
13	0.00000E+00	1.33000E+02	0.00000E+00
14	0.00000E+00	1.38500E+02	0.00000E+00
15	0.00000E+00	1.49500E+02	0.00000E+00
16	0.00000E+00	1.55000E+02	0.00000E+00
17	0.00000E+00	1.60500E+02	0.00000E+00
18	0.00000E+00	1.01000E+02	-4.60000E+01
19	0.00000E+00	9.76250E+01	-4.60000E+01
20	0.00000E+00	1.44000E+02	-4.60000E+01
21	0.00000E+00	1.66000E+02	-4.60000E+01
22	-9.50000E+00	1.44000E+02	-4.40000E+01

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Node	X-Coord.	Y-Coord.	Z-Coord.
23	-2.28400E+01	1.44000E+02	-4.40000E+01
24	-2.65000E+01	1.44000E+02	-4.40000E+01
25	0.00000E+00	1.05500E+02	-4.60000E+01
26	0.00000E+00	1.11000E+02	-4.60000E+01
27	0.00000E+00	1.15000E+02	-4.60000E+01
28	0.00000E+00	1.22000E+02	-4.60000E+01
29	0.00000E+00	1.27500E+02	-4.60000E+01
30	0.00000E+00	1.33000E+02	-4.60000E+01
31	0.00000E+00	1.38500E+02	-4.60000E+01
32	0.00000E+00	1.49500E+02	-4.60000E+01
33	0.00000E+00	1.55000E+02	-4.60000E+01
34	0.00000E+00	1.60500E+02	-4.60000E+01
35	-9.25000E+00	1.01000E+02	-1.02500E+01
36	-9.25000E+00	1.01000E+02	-3.57500E+01
37	0.00000E+00	1.01000E+02	-2.00000E+00
38	0.00000E+00	1.44000E+02	-2.00000E+00
39	-2.28400E+01	1.44000E+02	0.00000E+00
40	-9.50000E+00	1.42000E+02	-2.00000E+00
41	-9.50000E+00	1.46000E+02	-2.00000E+00
42	-2.65000E+01	1.46000E+02	-2.00000E+00
43	0.00000E+00	1.01000E+02	-4.40000E+01
44	0.00000E+00	1.44000E+02	-4.40000E+01
45	0.00000E+00	1.46000E+02	-4.40000E+01
46	-9.50000E+00	1.46000E+02	-4.40000E+01
47	-9.50000E+00	1.42000E+02	-4.40000E+01
48	-2.28400E+01	1.44000E+02	-4.60000E+01
49	-2.65000E+01	1.46000E+02	-4.40000E+01
50	0.00000E+00	1.46000E+02	-2.00000E+00
51	0.00000E+00	1.46000E+02	-1.70000E+01
52	0.00000E+00	1.46000E+02	-2.90000E+01
53	-2.65000E+01	1.46000E+02	-1.70000E+01
54	-2.65000E+01	1.46000E+02	-2.90000E+01
55	-9.50000E+00	1.42000E+02	-6.00000E+00
56	-9.50000E+00	1.42000E+02	-4.00000E+01
57	0.00000E+00	4.90000E+01	1.32000E+00
58	0.00000E+00	9.65000E+01	1.32000E+00
59	0.00000E+00	9.76250E+01	1.32000E+00
60	0.00000E+00	1.01000E+02	1.32000E+00
61	0.00000E+00	1.15000E+02	1.32000E+00
62	4.00000E+00	9.65000E+01	1.32000E+00
63	0.00000E+00	4.90000E+01	-4.73300E+01
64	0.00000E+00	9.65000E+01	-4.73300E+01

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Node	X-Coord.	Y-Coord.	Z-Coord.
65	0.00000E+00	9.76250E+01	-4.73300E+01
66	0.00000E+00	1.01000E+02	-4.73300E+01
67	0.00000E+00	1.15000E+02	-4.73300E+01
68	4.00000E+00	9.65000E+01	-4.73300E+01
69	0.00000E+00	4.90000E+01	-6.00000E+00
70	0.00000E+00	4.90000E+01	-1.20000E+01
71	0.00000E+00	4.90000E+01	-3.40000E+01
72	0.00000E+00	4.90000E+01	-4.00000E+01
73	-9.50000E+00	4.53800E+01	-6.00000E+00
74	-9.50000E+00	4.53800E+01	-4.00000E+01
75	4.00000E+00	9.65000E+01	-6.00000E+00
76	1.30000E+01	4.50000E+01	-6.00000E+00
77	1.30000E+01	4.50000E+01	-1.20000E+01
78	4.00000E+00	9.65000E+01	-4.00000E+01
79	1.30000E+01	4.50000E+01	-4.00000E+01
80	1.30000E+01	4.50000E+01	-3.40000E+01
81	0.00000E+00	5.10000E+01	1.32000E+00
82	0.00000E+00	5.10000E+01	-4.73300E+01
83	0.00000E+00	4.70000E+01	-1.20000E+01
84	0.00000E+00	4.70000E+01	-3.40000E+01
85	-2.75000E+00	4.79510E+01	-6.00000E+00
86	-2.75000E+00	4.79510E+01	-4.00000E+01

BEAM PROPERTIES

Multiplier = 1 (For AISC database properties only)

Prop No	X-Section Area	Moment of Inertia	Torsional Const.- J
		Iy / Iz	
1	1.590E+00	7.660E-01 7.660E-01	1.360E+00
2	2.590E+00	4.690E+00 1.540E+00	4.010E+00
3	2.580E+00	7.980E+00 2.650E+00	6.800E+00
4	1.000E+02	1.000E+03 1.000E+03	1.000E+03
5	3.530E+00	1.870E+01 1.870E+00	1.500E-01
6	4.590E+00	2.210E+01 1.170E+01	2.500E+01
7	2.090E+00	1.150E+00 2.210E+00	2.630E+00
8	7.900E-01	1.000E-02 1.000E-02	1.000E-02

Prop No	Max. Fiber Dist Cy / Cz	Shear Shape Fact SSFy / SSFz	Ctors	Shear Stress Factor SSTRFy / SSTRFz
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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Prop No	Max. Cy	Fiber /	Dist Cz	Shear SSFy	Shape /	Fact SSFz	Ctors	Shear Stress Factor SSTRFy / SSTRFz
1	1.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00
2	2.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E+00	1.00E+00	1.00E+00
3	2.50E+00	1.25E+00	0.00E+00	0.00E+00	0.00E+00	2.50E+00	1.00E+00	1.00E+00
4	1.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00
5	3.00E+00	1.79E+00	0.00E+00	0.00E+00	0.00E+00	3.00E+00	1.00E+00	1.00E+00
6	3.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E+00	1.00E+00	1.00E+00
7	1.00E+00	1.50E+00	0.00E+00	0.00E+00	0.00E+00	1.50E+00	1.00E+00	1.00E+00
8	1.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00

BEAM CONNECTIVITY

Beam No	Nodes			Prop No	Mat No	pincodes		Rigid End Offset		Length	Beam Type
	From/	To /	Ref			I /	J	I /	J		
1	2	1	0	3	1			0.00E+00	0.00E+00	0.34E+01	Beam
2	1	8	0	3	1			0.00E+00	0.00E+00	0.45E+01	Beam
3	8	9	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
4	9	10	0	3	1			0.00E+00	0.00E+00	0.40E+01	Beam
5	10	11	0	3	1			0.00E+00	0.00E+00	0.70E+01	Beam
6	11	12	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
7	12	13	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
8	13	14	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
9	14	3	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
10	3	15	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
11	15	16	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
12	16	17	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
13	17	4	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
14	38	5	0	1	1			0.00E+00	0.00E+00	0.95E+01	Beam
15	5	6	0	1	1			0.00E+00	0.00E+00	0.13E+02	Beam
16	6	7	0	1	1			0.00E+00	0.00E+00	0.37E+01	Beam
17	4	39	0	1	1			0.35E+01	0.00E+00	0.32E+02	Beam
18	37	6	0	1	1			0.20E+01	0.20E+01	0.49E+02	Beam
19	19	18	0	3	1			0.00E+00	0.00E+00	0.34E+01	Beam
20	18	25	0	3	1			0.00E+00	0.00E+00	0.45E+01	Beam
21	25	26	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
22	26	27	0	3	1			0.00E+00	0.00E+00	0.40E+01	Beam
23	27	28	0	3	1			0.00E+00	0.00E+00	0.70E+01	Beam
24	28	29	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
25	29	30	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
26	30	31	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Beam No	Nodes From/ To / Ref	Prop No	Mat No	pincodes I / J	Rigid I	End /	Offset J	Length	Beam Type
27	31 20 0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	
28	20 32 0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	
29	32 33 0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	
30	33 34 0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	
31	34 21 0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	
32	44 22 0	1	1		0.00E+00	0.00E+00	0.95E+01	Beam	
33	22 23 0	1	1		0.00E+00	0.00E+00	0.13E+02	Beam	
34	23 24 0	1	1		0.00E+00	0.00E+00	0.37E+01	Beam	
35	21 48 0	1	1		0.35E+01	0.00E+00	0.32E+02	Beam	
36	43 23 0	1	1		0.20E+01	0.20E+01	0.49E+02	Beam	
37	50 51 0	1	1		0.00E+00	0.00E+00	0.15E+02	Beam	
38	51 52 0	1	1		0.00E+00	0.00E+00	0.12E+02	Beam	
39	52 45 0	1	1		0.00E+00	0.00E+00	0.15E+02	Beam	
40	41 46 0	1	1		0.00E+00	0.00E+00	0.42E+02	Beam	
41	42 53 0	1	1		0.00E+00	0.00E+00	0.15E+02	Beam	
42	53 54 0	1	1		0.00E+00	0.00E+00	0.12E+02	Beam	
43	54 49 0	1	1		0.00E+00	0.00E+00	0.15E+02	Beam	
44	40 55 0	2	1		0.00E+00	0.00E+00	0.40E+01	Beam	
45	55 56 0	2	1		0.00E+00	0.00E+00	0.34E+02	Beam	
46	56 47 0	2	1		0.00E+00	0.00E+00	0.40E+01	Beam	
47	37 35 0	1	1		0.00E+00	0.00E+00	0.12E+02	Beam	
48	35 36 0	1	1		0.00E+00	0.00E+00	0.26E+02	Beam	
49	36 43 0	1	1		0.00E+00	0.00E+00	0.12E+02	Beam	
50	1 37 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
51	3 38 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
52	6 39 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
53	18 43 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
54	20 44 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
55	23 48 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
56	38 50 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
57	5 40 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
58	5 41 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
59	7 42 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
60	44 45 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
61	22 46 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
62	22 47 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
63	24 49 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
64	57 81 0	4	2		0.00E+00	0.00E+00	0.20E+01	Beam	
65	58 59 0	5	1		0.00E+00	0.00E+00	0.11E+01	Beam	
66	59 60 0	5	1		0.00E+00	0.00E+00	0.34E+01	Beam	
67	60 61 0	5	1		0.00E+00	0.00E+00	0.14E+02	Beam	

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Beam No	Nodes From/ To / Ref			Prop No	Mat No	pincodes I / J		Rigid End Offset I / J		Length	Beam Type
68	63	82	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
69	64	65	0	5	1			0.00E+00	0.00E+00	0.11E+01	Beam
70	65	66	0	5	1			0.00E+00	0.00E+00	0.34E+01	Beam
71	66	67	0	5	1			0.00E+00	0.00E+00	0.14E+02	Beam
72	57	69	0	6	1			0.00E+00	0.00E+00	0.73E+01	Beam
73	69	70	0	6	1			0.00E+00	0.00E+00	0.60E+01	Beam
74	70	71	0	6	1			0.00E+00	0.00E+00	0.22E+02	Beam
75	71	72	0	6	1			0.00E+00	0.00E+00	0.60E+01	Beam
76	72	63	0	6	1			0.00E+00	0.00E+00	0.73E+01	Beam
77	62	75	0	7	1			0.00E+00	0.00E+00	0.73E+01	Beam
78	75	78	0	7	1			0.00E+00	0.00E+00	0.34E+02	Beam
79	78	68	0	7	1			0.00E+00	0.00E+00	0.73E+01	Beam
80	75	76	0	1	1			0.00E+00	0.00E+00	0.52E+02	Beam
81	76	77	75	1	1			0.00E+00	0.00E+00	0.60E+01	Beam
82	78	79	0	1	1			0.00E+00	0.00E+00	0.52E+02	Beam
83	79	80	78	1	1			0.00E+00	0.00E+00	0.60E+01	Beam
84	58	62	0	4	2			0.00E+00	0.00E+00	0.40E+01	Beam
85	64	68	0	4	2			0.00E+00	0.00E+00	0.40E+01	Beam
88	1	60	0	4	2	12456		0.00E+00	0.00E+00	0.13E+01	Beam
89	10	61	0	4	2	12456		0.00E+00	0.00E+00	0.13E+01	Beam
90	18	66	0	4	2	12456		0.00E+00	0.00E+00	0.13E+01	Beam
91	27	67	0	4	2	12456		0.00E+00	0.00E+00	0.13E+01	Beam
92	56	74	0	8	1	NA	NA	NA	NA	0.97E+02	Truss
93	55	73	0	8	1	NA	NA	NA	NA	0.97E+02	Truss
94	81	58	0	5	1			0.00E+00	0.00E+00	0.46E+02	Beam
95	82	64	0	5	1			0.00E+00	0.00E+00	0.46E+02	Beam
96	70	83	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
97	71	84	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam

SPRING ELEMENTS

Spring No	Nodes From/ To		Direction	Stiffness No.	Spring Type
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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Spring No	Nodes From/ To	Direction	Stiffness No.	Spring Type
1	10 61	Translational	1	L BN
2	27 67	Translational	1	L BN
3	2 59	Translational	1	L BN
4	19 65	Translational	1	L BN

NODAL CONNECTIVITY

*** WARNING - Node 85 not connected to any element ***
 *** WARNING - Node 86 not connected to any element ***

RESTRAINTS

Node No	Global/Local	Restraint Directions
70	GLOBAL	X Y Z - - RZ
71	GLOBAL	X Y Z - - RZ
73	GLOBAL	X Y Z RX RY RZ
74	GLOBAL	X Y Z RX RY RZ
77	GLOBAL	X Y Z RX RY RZ
80	GLOBAL	X Y Z RX RY RZ

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SOLVE DISPLACEMENTS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1

DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GRAVITY LOADING

Direction	Gravity Factor	Load Factor
X	.0000E+00	.1000E+01
Y	-.1000E+01	.1000E+01
Z	.0000E+00	.1000E+01

INERTIA LOADING

Direction	Translational Accel.	Rotational Accel.	Rotational Velocity	Origin
X	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Y	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Z	.0000E+00	.0000E+00	.0000E+00	.0000E+00

Gravity Acceleration = .3864E+03

REFERENCE TEMPERATURE = .0000E+00

BEAM/TRUSS GLOBAL DISTRIBUTED LOADS

BEAM	GLOBAL X-AXIS	GLOBAL Y-AXIS	GLOBAL Z-AXIS
37	.0000E+00	-.5431E+02	.0000E+00
38	.0000E+00	-.5431E+02	.0000E+00
39	.0000E+00	-.5431E+02	.0000E+00
41	.0000E+00	-.1712E+02	.0000E+00
42	.0000E+00	-.1712E+02	.0000E+00
43	.0000E+00	-.1712E+02	.0000E+00

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
 DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
1	.0000E+00	-.2975E+01	.0000E+00	-.3333E-01	.0000E+00	.0000E+00
2	.0000E+00	-.1232E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
3	.0000E+00	-.4116E+01	.0000E+00	-.3333E-01	.0000E+00	.0000E+00
4	-.5647E-15	-.8346E+01	.0000E+00	.0000E+00	.0000E+00	.3759E+02
5	.0000E+00	-.5339E+01	.0000E+00	.0000E+00	.0000E+00	.3289E+01
6	-.4044E-14	-.1398E+02	.0000E+00	.3333E-01	.0000E+00	-.5073E+02
7	.0000E+00	-.9234E+00	.0000E+00	.0000E+00	.0000E+00	-.5023E+00
8	.0000E+00	-.3651E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
9	.0000E+00	-.3468E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
10	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
11	.0000E+00	-.4563E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
12	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
13	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
14	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
15	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
16	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
17	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
18	.0000E+00	-.2975E+01	.0000E+00	.3333E-01	.0000E+00	.0000E+00
19	.0000E+00	-.1232E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
20	.0000E+00	-.4116E+01	.0000E+00	.3333E-01	.0000E+00	.0000E+00
21	-.5647E-15	-.8346E+01	.0000E+00	.0000E+00	.0000E+00	.3759E+02
22	.0000E+00	-.5339E+01	.0000E+00	.0000E+00	.0000E+00	.3289E+01
23	-.4044E-14	-.1398E+02	.0000E+00	-.3333E-01	.0000E+00	-.5073E+02
24	.0000E+00	-.9234E+00	.0000E+00	.0000E+00	.0000E+00	-.5023E+00
25	.0000E+00	-.3651E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
26	.0000E+00	-.3468E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
27	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
28	.0000E+00	-.4563E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
29	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
30	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
31	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
32	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
33	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
34	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
35	.0000E+00	-.8526E+01	.0000E+00	-.2055E+02	.0000E+00	-.4299E+01

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SOLVE DISPLACEMENTS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

L O A D C A S E 1

DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
36	.0000E+00	-.8526E+01	.0000E+00	.2055E+02	.0000E+00	-.4299E+01
37	-.4044E-14	-.1294E+02	.0000E+00	-.3801E+01	.0000E+00	.4886E+02
38	.0000E+00	-.2337E+01	.0000E+00	.3333E-01	.0000E+00	.3384E+01
39	-.5647E-15	-.6438E+01	.0000E+00	-.3333E-01	.0000E+00	-.2143E+02
40	.0000E+00	-.1566E+01	.0000E+00	-.9773E+00	.0000E+00	.0000E+00
41	.0000E+00	-.9549E+01	.0000E+00	-.6615E+02	.0000E+00	.0000E+00
42	.0000E+00	-.1319E+03	.0000E+00	-.3294E+03	.0000E+00	.0000E+00
43	-.4044E-14	-.1294E+02	.0000E+00	.3801E+01	.0000E+00	.4886E+02
44	.0000E+00	-.2337E+01	.0000E+00	-.3333E-01	.0000E+00	.3384E+01
45	.0000E+00	-.4108E+03	.0000E+00	.1027E+04	.0000E+00	.0000E+00
46	.0000E+00	-.9549E+01	.0000E+00	.6615E+02	.0000E+00	.0000E+00
47	.0000E+00	-.1566E+01	.0000E+00	.9773E+00	.0000E+00	.0000E+00
48	-.5647E-15	-.6438E+01	.0000E+00	.3333E-01	.0000E+00	-.2143E+02
49	.0000E+00	-.1319E+03	.0000E+00	.3294E+03	.0000E+00	.0000E+00
50	.0000E+00	-.4108E+03	.0000E+00	-.1027E+04	.0000E+00	.0000E+00
51	.0000E+00	-.7393E+03	.0000E+00	.3696E+03	.0000E+00	.0000E+00
52	.0000E+00	-.7393E+03	.0000E+00	-.3696E+03	.0000E+00	.0000E+00
53	.0000E+00	-.2372E+03	.0000E+00	.1186E+03	.0000E+00	.0000E+00
54	.0000E+00	-.2372E+03	.0000E+00	-.1186E+03	.0000E+00	.0000E+00
55	.0000E+00	-.2473E+02	.0000E+00	-.6963E+02	.0000E+00	.0000E+00
56	.0000E+00	-.2473E+02	.0000E+00	.6963E+02	.0000E+00	.0000E+00
57	.0000E+00	-.4854E+01	.0000E+00	-.5800E+01	.0000E+00	.0000E+00
58	.0000E+00	-.2349E+02	.0000E+00	.0000E+00	.0000E+00	-.1333E+00
59	.0000E+00	-.2248E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
60	.0000E+00	-.8811E+01	.0000E+00	-.8712E-01	.0000E+00	.0000E+00
61	.0000E+00	-.7125E+01	.0000E+00	-.8712E-01	.0000E+00	.0000E+00
62	.0000E+00	-.2365E+01	.0000E+00	-.2641E+01	.0000E+00	.1333E+00
63	.0000E+00	-.4861E+01	.0000E+00	.5816E+01	.0000E+00	.0000E+00
64	.0000E+00	-.2349E+02	.0000E+00	.0000E+00	.0000E+00	-.1333E+00
65	.0000E+00	-.2248E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
66	.0000E+00	-.8812E+01	.0000E+00	.8845E-01	.0000E+00	.0000E+00
67	.0000E+00	-.7126E+01	.0000E+00	.8845E-01	.0000E+00	.0000E+00
68	.0000E+00	-.2368E+01	.0000E+00	.2648E+01	.0000E+00	.1333E+00
69	.0000E+00	-.8651E+01	.0000E+00	.1903E+01	.0000E+00	.0000E+00
70	.0000E+00	-.1829E+02	.0000E+00	-.4849E+02	.0000E+00	.0000E+00
71	.0000E+00	-.1829E+02	.0000E+00	.4849E+02	.0000E+00	.0000E+00
72	.0000E+00	-.8658E+01	.0000E+00	-.1919E+01	.0000E+00	.0000E+00
73	.0000E+00	-.1080E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	-.1080E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
75	-.8702E-15	-.2398E+02	.0000E+00	-.5434E+02	.0000E+00	-.1764E+02

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SOLVE DISPLACEMENTS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

L O A D C A S E 1

DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
76	-.8891E-15	-.1311E+02	.0000E+00	-.1350E+01	.2812E-16	.1764E+02
77	-.1891E-16	-.1350E+01	.0000E+00	.1350E+01	-.2812E-16	.0000E+00
78	-.8702E-15	-.2399E+02	.0000E+00	.5433E+02	.0000E+00	-.1764E+02
79	-.8891E-15	-.1311E+02	.0000E+00	.1350E+01	-.2812E-16	.1764E+02
80	-.1891E-16	-.1350E+01	.0000E+00	-.1350E+01	.2812E-16	.0000E+00
81	.0000E+00	-.2283E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
82	.0000E+00	-.2283E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
83	.0000E+00	-.1000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
84	.0000E+00	-.1000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00

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SOLVE DISPLACEMENTS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1

DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

DISPLACEMENTS

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
1	.1278E-01	-.2252E-01	.2643E-02	/	.3530E-03	-.2426E-03	-.8224E-03
2	.1001E-01	-.2252E-01	.1450E-02	/	.3540E-03	-.2426E-03	-.8224E-03
3	.5613E-01	-.2260E-01	.1642E-02	/	-.8600E-03	-.2188E-03	-.1255E-02
4	.8172E-01	-.2262E-01	-.1695E-01	/	-.8412E-03	-.1220E-03	-.1142E-02
5	.5662E-01	-.7878E-02	.8312E-04	/	.1276E-03	-.4731E-04	-.1467E-02
6	.5669E-01	.1441E-02	.1229E-02	/	-.6595E-03	.2053E-03	-.5667E-03
7	.5669E-01	.3252E-02	.1949E-02	/	-.9904E-03	.1843E-03	-.4591E-03
8	.1647E-01	-.2253E-01	.4223E-02	/	.3454E-03	-.2401E-03	-.8188E-03
9	.2104E-01	-.2254E-01	.6028E-02	/	.3050E-03	-.2370E-03	-.8509E-03
10	.2453E-01	-.2255E-01	.7152E-02	/	.2540E-03	-.2348E-03	-.8995E-03
11	.3118E-01	-.2256E-01	.8469E-02	/	.1093E-03	-.2310E-03	-.9989E-03
12	.3688E-01	-.2257E-01	.8627E-02	/	-.5988E-04	-.2279E-03	-.1071E-02
13	.4295E-01	-.2258E-01	.7721E-02	/	-.2778E-03	-.2249E-03	-.1138E-02
14	.4938E-01	-.2259E-01	.5482E-02	/	-.5445E-03	-.2218E-03	-.1199E-02
15	.6284E-01	-.2260E-01	-.3055E-02	/	-.8489E-03	-.1946E-03	-.1187E-02
16	.6924E-01	-.2261E-01	-.7703E-02	/	-.8421E-03	-.1704E-03	-.1145E-02
17	.7548E-01	-.2262E-01	-.1233E-01	/	-.8395E-03	-.1462E-03	-.1130E-02
18	.1275E-01	-.2254E-01	-.2628E-02	/	-.3525E-03	.2424E-03	-.8249E-03
19	.9966E-02	-.2254E-01	-.1436E-02	/	-.3535E-03	.2424E-03	-.8249E-03
20	.5619E-01	-.2261E-01	-.1613E-02	/	.8599E-03	.2167E-03	-.1257E-02
21	.8182E-01	-.2264E-01	.1697E-01	/	.8412E-03	.1200E-03	-.1144E-02
22	.5667E-01	-.7877E-02	-.7479E-04	/	-.1275E-03	.4499E-04	-.1469E-02
23	.5674E-01	.1467E-02	-.1251E-02	/	.6598E-03	-.2075E-03	-.5686E-03
24	.5674E-01	.3285E-02	-.1979E-02	/	.9912E-03	-.1867E-03	-.4607E-03
25	.1644E-01	-.2255E-01	-.4206E-02	/	-.3450E-03	.2397E-03	-.8214E-03
26	.2103E-01	-.2256E-01	-.6008E-02	/	-.3045E-03	.2364E-03	-.8534E-03
27	.2453E-01	-.2256E-01	-.7130E-02	/	-.2535E-03	.2341E-03	-.9018E-03
28	.3120E-01	-.2258E-01	-.8444E-02	/	-.1088E-03	.2299E-03	-.1001E-02
29	.3690E-01	-.2259E-01	-.8600E-02	/	.6021E-04	.2266E-03	-.1073E-02
30	.4299E-01	-.2260E-01	-.7693E-02	/	.2780E-03	.2233E-03	-.1139E-02
31	.4943E-01	-.2261E-01	-.5453E-02	/	.5446E-03	.2200E-03	-.1201E-02
32	.6290E-01	-.2262E-01	.3084E-02	/	.8488E-03	.1925E-03	-.1189E-02
33	.6931E-01	-.2263E-01	.7732E-02	/	.8420E-03	.1683E-03	-.1147E-02
34	.7557E-01	-.2263E-01	.1235E-01	/	.8395E-03	.1441E-03	-.1132E-02
35	.1557E-01	-.1214E-01	.3645E-04	/	.1436E-03	-.2408E-03	-.8394E-03
36	.1555E-01	-.1214E-01	-.1370E-04	/	-.1436E-03	.2425E-03	-.8408E-03
37	.1327E-01	-.2181E-01	.2643E-02	/	.3530E-03	-.2426E-03	-.8225E-03
38	.5657E-01	-.2432E-01	.1642E-02	/	-.8603E-03	-.2188E-03	-.1256E-02
39	.5710E-01	.2760E-02	.1229E-02	/	-.6595E-03	.2053E-03	-.5670E-03
40	.5369E-01	-.7876E-02	-.1723E-03	/	.1279E-03	-.4726E-04	-.1467E-02

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
 DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
41	.5955E-01	-.7878E-02	.3382E-03	/	.1275E-03	-.4730E-04	-.1467E-02
42	.5761E-01	.3252E-02	-.3145E-04	/	-.9905E-03	.1843E-03	-.4591E-03
43	.1324E-01	-.2183E-01	-.2628E-02	/	-.3525E-03	.2424E-03	-.8251E-03
44	.5662E-01	-.2434E-01	-.1613E-02	/	.8602E-03	.2167E-03	-.1258E-02
45	.5914E-01	-.2434E-01	.1077E-03	/	.8607E-03	.2167E-03	-.1258E-02
46	.5961E-01	-.7877E-02	-.3298E-03	/	-.1275E-03	.4498E-04	-.1469E-02
47	.5373E-01	-.7876E-02	.1806E-03	/	-.1279E-03	.4494E-04	-.1469E-02
48	.5716E-01	.2787E-02	-.1251E-02	/	.6598E-03	-.2075E-03	-.5689E-03
49	.5766E-01	.3285E-02	.3157E-05	/	.9913E-03	-.1867E-03	-.4607E-03
50	.5908E-01	-.2432E-01	-.7885E-04	/	-.8608E-03	-.2188E-03	-.1256E-02
51	.6120E-01	-.4891E-01	-.1222E-04	/	-.1212E-02	-.6365E-04	-.1257E-02
52	.6122E-01	-.4892E-01	.4109E-04	/	.1210E-02	.6076E-04	-.1257E-02
53	.5584E-01	-.1152E-01	-.1909E-04	/	-.5918E-03	.5163E-04	-.4596E-03
54	.5586E-01	-.1151E-01	-.9202E-05	/	.5937E-03	-.5437E-04	-.4601E-03
55	.5386E-01	-.6775E-02	-.1387E-03	/	.3281E-03	-.3848E-04	-.1467E-02
56	.5390E-01	-.6775E-02	.1470E-03	/	-.3281E-03	.3615E-04	-.1469E-02
57	-.1367E-03	.8674E-03	-.1771E-05	/	-.7525E-04	-.1167E-04	-.1182E-03
58	.1129E-01	.9252E-03	.1152E-02	/	.2452E-03	.2792E-03	-.3944E-03
59	.1174E-01	.9250E-03	.1436E-02	/	.2589E-03	.2792E-03	-.4045E-03
60	.1315E-01	.9245E-03	.2372E-02	/	.2946E-03	.2792E-03	-.4348E-03
61	.1983E-01	.9236E-03	.7114E-02	/	.3607E-03	-.3566E-02	-.4977E-03
62	.1129E-01	-.6520E-03	.3521E-04	/	.2452E-03	.2792E-03	-.3943E-03
63	-.1365E-03	.8653E-03	.1776E-05	/	.7502E-04	.1164E-04	-.1180E-03
64	.1126E-01	.9227E-03	-.1139E-02	/	-.2446E-03	-.2780E-03	-.3932E-03
65	.1171E-01	.9225E-03	-.1422E-02	/	-.2584E-03	-.2780E-03	-.4033E-03
66	.1312E-01	.9220E-03	-.2357E-02	/	-.2941E-03	-.2780E-03	-.4335E-03
67	.1977E-01	.9211E-03	-.7092E-02	/	-.3603E-03	.3580E-02	-.4962E-03
68	.1126E-01	-.6501E-03	-.2725E-04	/	-.2447E-03	-.2780E-03	-.3932E-03
69	-.5418E-04	.3413E-03	-.7976E-06	/	-.6577E-04	-.1042E-04	-.5324E-04
70	.0000E+00	.0000E+00	.0000E+00	/	-.4631E-04	-.7335E-05	.0000E+00
71	.0000E+00	.0000E+00	.0000E+00	/	.4621E-04	.7323E-05	.0000E+00
72	-.5406E-04	.3402E-03	.7996E-06	/	.6554E-04	.1039E-04	-.5311E-04
73	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
75	.9517E-02	.1007E-02	.2704E-04	/	.1840E-03	.1957E-03	-.3560E-03
76	.9691E-04	-.4109E-03	-.1886E-05	/	.8063E-04	.2340E-04	-.3425E-04
77	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
78	.9496E-02	.1007E-02	-.1906E-04	/	-.1836E-03	-.1944E-03	-.3553E-03
79	.9617E-04	-.4081E-03	.1880E-05	/	-.8002E-04	-.2321E-04	-.3417E-04
80	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
81	.9985E-04	.8674E-03	-.1523E-03	/	-.7525E-04	-.1167E-04	-.1184E-03

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SOLVE DISPLACEMENTS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

L O A D C A S E 1

DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
82	.9965E-04	.8653E-03	.1518E-03	/	.7502E-04	.1164E-04	-.1182E-03
83	.0000E+00	-.6667E-10	.9263E-04	/	-.4631E-04	-.7335E-05	.0000E+00
84	.0000E+00	-.6667E-10	-.9242E-04	/	.4621E-04	.7323E-05	.0000E+00
85	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
86	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

BEAM LOADS AND/OR STRESSES

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 1							
GLoads	2	-.2126E-09	.2669E-10	-.1386E+02	.7052E-11	.1587E-11	.3385E-09
GLoads	1	.2126E-09	.2464E+01	.1386E+02	-.4678E+02	-.1587E-11	.2405E-09
LLoads	2	.2669E-10	-.1386E+02	-.2126E-09	.1587E-11	.3385E-09	.7052E-11
LLoads	1	.2464E+01	.1386E+02	.2126E-09	-.1587E-11	.2405E-09	-.4678E+02
Stress	2	-.1034E-10	-.5372E+01	-.8239E-10	-.5835E-12	-.1060E-09	-.3326E-11
Stress	2	.9903E-10	-.1197E-09	.5986E-10			
Stress	1	.9551E+00	-.5372E+01	-.8239E-10	-.5835E-12	.7533E-10	-.2207E+02
Stress	1	.2302E+02	-.2111E+02	.1151E+02			
BEAM NO. 2							
GLoads	1	.3180E+03	.1567E+03	-.9036E+02	-.7031E+02	-.4335E+02	-.9068E+03
GLoads	8	-.3180E+03	-.1534E+03	.9036E+02	-.3363E+03	.4335E+02	-.5242E+03
LLoads	1	.1567E+03	-.9036E+02	.3180E+03	-.4335E+02	-.9068E+03	-.7031E+02
LLoads	8	-.1534E+03	.9036E+02	-.3180E+03	.4335E+02	-.5242E+03	-.3363E+03
Stress	1	-.6074E+02	-.3502E+02	.1233E+03	.1594E+02	.2841E+03	.3316E+02
Stress	1	.2565E+03	-.3780E+03	.1897E+03			
Stress	8	-.5946E+02	-.3502E+02	.1233E+03	.1594E+02	-.1642E+03	-.1586E+03
Stress	8	.2634E+03	-.3823E+03	.1918E+03			
BEAM NO. 3							
GLoads	8	.3180E+03	.1534E+03	-.9036E+02	.3363E+03	-.4335E+02	.5242E+03
GLoads	9	-.3180E+03	-.1494E+03	.9036E+02	-.8333E+03	.4335E+02	-.2273E+04
LLoads	8	.1534E+03	-.9036E+02	.3180E+03	-.4335E+02	.5242E+03	.3363E+03
LLoads	9	-.1494E+03	.9036E+02	-.3180E+03	.4335E+02	-.2273E+04	-.8333E+03
Stress	8	-.5946E+02	-.3502E+02	.1233E+03	.1594E+02	-.1642E+03	-.1586E+03
Stress	8	.2634E+03	-.3823E+03	.1918E+03			
Stress	9	-.5791E+02	-.3502E+02	.1233E+03	.1594E+02	-.7122E+03	-.3931E+03
Stress	9	.1047E+04	-.1163E+04	.5818E+03			
BEAM NO. 4							
GLoads	9	.3180E+03	.1494E+03	-.9036E+02	.8333E+03	-.4335E+02	.2273E+04
GLoads	10	-.3180E+03	-.1465E+03	.9036E+02	-.1195E+04	.4335E+02	-.3545E+04
LLoads	9	.1494E+03	-.9036E+02	.3180E+03	-.4335E+02	.2273E+04	.8333E+03
LLoads	10	-.1465E+03	.9036E+02	-.3180E+03	.4335E+02	-.3545E+04	-.1195E+04
Stress	9	-.5791E+02	-.3502E+02	.1233E+03	.1594E+02	-.7122E+03	-.3931E+03
Stress	9	.1047E+04	-.1163E+04	.5818E+03			
Stress	10	-.5677E+02	-.3502E+02	.1233E+03	.1594E+02	-.1111E+04	-.5636E+03
Stress	10	.1617E+04	-.1731E+04	.8656E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 5							
GLoads	10	-.4211E+02	.1465E+03	-.1282E+03	.1195E+04	-.4335E+02	.3545E+04
GLoads	11	.4211E+02	-.1414E+03	.1282E+03	-.2092E+04	.4335E+02	-.3250E+04
LLoads	10	.1465E+03	-.1282E+03	-.4211E+02	-.4335E+02	.3545E+04	.1195E+04
LLoads	11	-.1414E+03	.1282E+03	.4211E+02	.4335E+02	-.3250E+04	-.2092E+04
Stress	10	-.5677E+02	-.4969E+02	-.1632E+02	.1594E+02	-.1111E+04	-.5636E+03
Stress	10	.1617E+04	-.1731E+04	.8656E+03			
Stress	11	-.5479E+02	-.4969E+02	-.1632E+02	.1594E+02	-.1018E+04	-.9869E+03
Stress	11	.1950E+04	-.2060E+04	.1030E+04			
BEAM NO. 6							
GLoads	11	-.4211E+02	.1414E+03	-.1282E+03	.2092E+04	-.4335E+02	.3250E+04
GLoads	12	.4211E+02	-.1373E+03	.1282E+03	-.2797E+04	.4335E+02	-.3019E+04
LLoads	11	.1414E+03	-.1282E+03	-.4211E+02	-.4335E+02	.3250E+04	.2092E+04
LLoads	12	-.1373E+03	.1282E+03	.4211E+02	.4335E+02	-.3019E+04	-.2797E+04
Stress	11	-.5479E+02	-.4969E+02	-.1632E+02	.1594E+02	-.1018E+04	-.9869E+03
Stress	11	.1950E+04	-.2060E+04	.1030E+04			
Stress	12	-.5324E+02	-.4969E+02	-.1632E+02	.1594E+02	-.9458E+03	-.1319E+04
Stress	12	.2212E+04	-.2318E+04	.1159E+04			
BEAM NO. 7							
GLoads	12	-.4211E+02	.1373E+03	-.1282E+03	.2797E+04	-.4335E+02	.3019E+04
GLoads	13	.4211E+02	-.1333E+03	.1282E+03	-.3502E+04	.4335E+02	-.2787E+04
LLoads	12	.1373E+03	-.1282E+03	-.4211E+02	-.4335E+02	.3019E+04	.2797E+04
LLoads	13	-.1333E+03	.1282E+03	.4211E+02	.4335E+02	-.2787E+04	-.3502E+04
Stress	12	-.5324E+02	-.4969E+02	-.1632E+02	.1594E+02	-.9458E+03	-.1319E+04
Stress	12	.2212E+04	-.2318E+04	.1159E+04			
Stress	13	-.5168E+02	-.4969E+02	-.1632E+02	.1594E+02	-.8732E+03	-.1652E+04
Stress	13	.2474E+04	-.2577E+04	.1289E+04			
BEAM NO. 8							
GLoads	13	-.4211E+02	.1333E+03	-.1282E+03	.3502E+04	-.4335E+02	.2787E+04
GLoads	14	.4211E+02	-.1293E+03	.1282E+03	-.4208E+04	.4335E+02	-.2556E+04
LLoads	13	.1333E+03	-.1282E+03	-.4211E+02	-.4335E+02	.2787E+04	.3502E+04
LLoads	14	-.1293E+03	.1282E+03	.4211E+02	.4335E+02	-.2556E+04	-.4208E+04
Stress	13	-.5168E+02	-.4969E+02	-.1632E+02	.1594E+02	-.8732E+03	-.1652E+04
Stress	13	.2474E+04	-.2577E+04	.1289E+04			
Stress	14	-.5012E+02	-.4969E+02	-.1632E+02	.1594E+02	-.8007E+03	-.1985E+04
Stress	14	.2735E+04	-.2835E+04	.1418E+04			
BEAM NO. 9							
GLoads	14	-.4211E+02	.1293E+03	-.1282E+03	.4208E+04	-.4335E+02	.2556E+04

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	3	.4211E+02	-.1253E+03	.1282E+03	-.4913E+04	.4335E+02	-.2324E+04
LLoads	14	.1293E+03	-.1282E+03	-.4211E+02	-.4335E+02	.2556E+04	.4208E+04
LLoads	3	-.1253E+03	.1282E+03	.4211E+02	.4335E+02	-.2324E+04	-.4913E+04
Stress	14	-.5012E+02	-.4969E+02	-.1632E+02	.1594E+02	-.8007E+03	-.1985E+04
Stress	14	.2735E+04	-.2835E+04	.1418E+04			
Stress	3	-.4857E+02	-.4969E+02	-.1632E+02	.1594E+02	-.7281E+03	-.2317E+04
Stress	3	.2997E+04	-.3094E+04	.1547E+04			
BEAM NO. 10							
GLoads	3	.2095E+03	.1000E+03	-.1122E+02	-.1912E+03	-.3452E+03	-.3539E+04
GLoads	15	-.2095E+03	-.9600E+02	.1122E+02	.1295E+03	.3452E+03	.2386E+04
LLoads	3	.1000E+03	-.1122E+02	.2095E+03	-.3452E+03	-.3539E+04	-.1912E+03
LLoads	15	-.9600E+02	.1122E+02	-.2095E+03	.3452E+03	.2386E+04	.1295E+03
Stress	3	-.3876E+02	-.4349E+01	.8120E+02	.1269E+03	.1109E+04	.9018E+02
Stress	3	.1160E+04	-.1238E+04	.6316E+03			
Stress	15	-.3721E+02	-.4349E+01	.8120E+02	.1269E+03	.7476E+03	.6106E+02
Stress	15	.7715E+03	-.8459E+03	.4416E+03			
BEAM NO. 11							
GLoads	15	.2095E+03	.9600E+02	-.1122E+02	-.1295E+03	-.3452E+03	-.2386E+04
GLoads	16	-.2095E+03	-.9198E+02	.1122E+02	.6774E+02	.3452E+03	.1234E+04
LLoads	15	.9600E+02	-.1122E+02	.2095E+03	-.3452E+03	-.2386E+04	-.1295E+03
LLoads	16	-.9198E+02	.1122E+02	-.2095E+03	.3452E+03	.1234E+04	.6774E+02
Stress	15	-.3721E+02	-.4349E+01	.8120E+02	.1269E+03	.7476E+03	.6106E+02
Stress	15	.7715E+03	-.8459E+03	.4416E+03			
Stress	16	-.3565E+02	-.4349E+01	.8120E+02	.1269E+03	.3867E+03	.3195E+02
Stress	16	.3830E+03	-.4543E+03	.2602E+03			
BEAM NO. 12							
GLoads	16	.2095E+03	.9198E+02	-.1122E+02	-.6774E+02	-.3452E+03	-.1234E+04
GLoads	17	-.2095E+03	-.8797E+02	.1122E+02	.6018E+01	.3452E+03	.8216E+02
LLoads	16	.9198E+02	-.1122E+02	.2095E+03	-.3452E+03	-.1234E+04	-.6774E+02
LLoads	17	-.8797E+02	.1122E+02	-.2095E+03	.3452E+03	.8216E+02	.6018E+01
Stress	16	-.3565E+02	-.4349E+01	.8120E+02	.1269E+03	.3867E+03	.3195E+02
Stress	16	.3830E+03	-.4543E+03	.2602E+03			
Stress	17	-.3410E+02	-.4349E+01	.8120E+02	.1269E+03	.2574E+02	.2839E+01
Stress	17	-.5519E+01	-.6267E+02	.1307E+03			
BEAM NO. 13							
GLoads	17	.2095E+03	.8797E+02	-.1122E+02	-.6018E+01	-.3452E+03	-.8216E+02
GLoads	4	-.2095E+03	-.8395E+02	.1122E+02	-.5570E+02	.3452E+03	-.1070E+04
LLoads	17	.8797E+02	-.1122E+02	.2095E+03	-.3452E+03	-.8216E+02	-.6018E+01

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 14							
LLoads	4	-.8395E+02	.1122E+02	-.2095E+03	.3452E+03	-.1070E+04	-.5570E+02
Stress	17	-.3410E+02	-.4349E+01	.8120E+02	.1269E+03	.2574E+02	.2839E+01
Stress	17	-.5519E+01	-.6267E+02	.1307E+03			
Stress	4	-.3254E+02	-.4349E+01	.8120E+02	.1269E+03	-.3352E+03	-.2627E+02
Stress	4	.3289E+03	-.3940E+03	.2344E+03			
BEAM NO. 15							
GLoads	38	-.2515E+03	-.1125E+04	.9490E+02	-.1632E+04	.3596E+02	.5862E+04
GLoads	5	.2515E+03	.1129E+04	-.9490E+02	.1632E+04	.8656E+03	.4847E+04
LLoads	38	.2515E+03	-.1125E+04	-.9490E+02	.1632E+04	.3596E+02	-.5862E+04
LLoads	5	-.2515E+03	.1129E+04	.9490E+02	-.1632E+04	.8656E+03	-.4847E+04
Stress	38	-.1582E+03	-.7076E+03	-.5969E+02	-.1200E+04	-.4694E+02	.7653E+04
Stress	38	.7541E+04	-.7858E+04	.4108E+04			
Stress	5	-.1582E+03	-.7103E+03	-.5969E+02	-.1200E+04	.1130E+04	-.6328E+04
Stress	5	.7300E+04	-.7616E+04	.3993E+04			
BEAM NO. 16							
GLoads	5	-.2515E+03	.4965E+03	-.1077E+02	.9259E+03	-.5070E+03	-.4849E+04
GLoads	6	.2515E+03	-.4905E+03	.1077E+02	-.9259E+03	.3633E+03	-.1734E+04
LLoads	5	.2515E+03	.4965E+03	.1077E+02	-.9259E+03	-.5070E+03	.4849E+04
LLoads	6	-.2515E+03	-.4905E+03	-.1077E+02	.9259E+03	.3633E+03	.1734E+04
Stress	5	-.1582E+03	.3123E+03	.6773E+01	.6808E+03	.6618E+03	-.6331E+04
Stress	5	.6835E+04	-.7151E+04	.3640E+04			
Stress	6	-.1582E+03	.3085E+03	.6773E+01	.6808E+03	.4743E+03	.2263E+04
Stress	6	.2579E+04	-.2896E+04	.1600E+04			
BEAM NO. 17							
GLoads	6	-.2101E-01	.3708E+03	-.3930E+02	.1419E+04	.5956E+02	-.1353E+04
GLoads	7	.2101E-01	-.3691E+03	.3930E+02	-.1419E+04	-.2034E+03	-.6496E+00
LLoads	6	.2101E-01	.3708E+03	.3930E+02	-.1419E+04	.5956E+02	.1353E+04
LLoads	7	-.2101E-01	-.3691E+03	-.3930E+02	.1419E+04	-.2034E+03	.6496E+00
Stress	6	-.1321E-01	.2332E+03	.2472E+02	.1043E+04	-.7776E+02	-.1767E+04
Stress	6	.1844E+04	-.1845E+04	.1392E+04			
Stress	7	-.1321E-01	.2321E+03	.2472E+02	.1043E+04	-.2656E+03	.8481E+00
Stress	7	.2664E+03	-.2664E+03	.1052E+04			
BEAM NO. 18							
GLoads	4	.2095E+03	.8395E+02	-.1122E+02	.5570E+02	-.3452E+03	.1070E+04
GLoads	39	-.2095E+03	-.7127E+02	.1122E+02	.1912E+03	.8890E+02	.1750E+04
LLoads	4	-.2091E+03	-.8486E+02	.1122E+02	.1994E+03	-.2475E+03	-.7696E+03
LLoads	39	.2003E+03	.9399E+02	-.1122E+02	-.1994E+03	-.6860E+02	-.1750E+04
Stress	4	.1315E+03	-.5337E+02	.7058E+01	-.1466E+03	.3232E+03	.1005E+04
Stress	4	.1459E+04	-.1196E+04	.7443E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	39	.1260E+03	-.5912E+02	.7058E+01	-.1466E+03	-.8955E+02	-.2284E+04
Stress	39	.2500E+04	-.2248E+04	.1259E+04			
BEAM NO. 18							
GLoads	37	.4201E+02	-.1707E+03	-.1731E+02	.8183E+02	-.3026E+03	.9848E+03
GLoads	6	-.4201E+02	.1908E+03	.1731E+02	-.8263E+03	-.9278E+02	.1337E+04
LLoads	37	-.1704E+03	-.4297E+02	.1731E+02	-.3057E+03	-.3507E+02	-.8989E+03
LLoads	6	.1882E+03	.5240E+02	-.1731E+02	.3057E+03	-.7386E+03	-.1232E+04
Stress	37	.1072E+03	-.2703E+02	.1089E+02	.2247E+03	.4578E+02	.1173E+04
Stress	37	.1326E+04	-.1112E+04	.7003E+03			
Stress	6	.1184E+03	-.3296E+02	.1089E+02	.2247E+03	-.9642E+03	-.1609E+04
Stress	6	.2691E+04	-.2455E+04	.1364E+04			
BEAM NO. 19							
GLoads	19	-.8654E-10	-.2301E-09	.1383E+02	-.2241E-10	.3322E-12	-.5127E-09
GLoads	18	.8654E-10	.2464E+01	-.1383E+02	.4668E+02	-.3322E-12	.6044E-09
LLoads	19	-.2301E-09	.1383E+02	-.8654E-10	.3322E-12	-.5127E-09	-.2241E-10
LLoads	18	.2464E+01	-.1383E+02	.8654E-10	-.3322E-12	.6044E-09	.4668E+02
Stress	19	.8919E-10	.5360E+01	-.3354E-10	-.1221E-12	.1606E-09	.1057E-10
Stress	19	.2604E-09	-.8200E-10	.1302E-09			
Stress	18	.9551E+00	.5360E+01	-.3354E-10	-.1221E-12	.1894E-09	.2202E+02
Stress	18	.2297E+02	-.2106E+02	.1149E+02			
BEAM NO. 20							
GLoads	18	.3170E+03	.1561E+03	.9026E+02	.6930E+02	.4689E+02	-.9041E+03
GLoads	25	-.3170E+03	-.1528E+03	-.9026E+02	.3369E+03	-.4689E+02	-.5224E+03
LLoads	18	.1561E+03	.9026E+02	.3170E+03	.4689E+02	-.9041E+03	.6930E+02
LLoads	25	-.1528E+03	-.9026E+02	-.3170E+03	-.4689E+02	-.5224E+03	.3369E+03
Stress	18	-.6049E+02	.3498E+02	.1229E+03	-.1724E+02	.2832E+03	-.3269E+02
Stress	18	.2554E+03	-.3764E+03	.1890E+03			
Stress	25	-.5922E+02	.3498E+02	.1229E+03	-.1724E+02	-.1637E+03	.1589E+03
Stress	25	.2633E+03	-.3818E+03	.1917E+03			
BEAM NO. 21							
GLoads	25	.3170E+03	.1528E+03	.9026E+02	-.3369E+03	.4689E+02	.5224E+03
GLoads	26	-.3170E+03	-.1488E+03	-.9026E+02	.8333E+03	-.4689E+02	-.2266E+04
LLoads	25	.1528E+03	.9026E+02	.3170E+03	.4689E+02	.5224E+03	-.3369E+03
LLoads	26	-.1488E+03	-.9026E+02	-.3170E+03	-.4689E+02	-.2266E+04	.8333E+03
Stress	25	-.5922E+02	.3498E+02	.1229E+03	-.1724E+02	-.1637E+03	.1589E+03
Stress	25	.2633E+03	-.3818E+03	.1917E+03			
Stress	26	-.5766E+02	.3498E+02	.1229E+03	-.1724E+02	-.7098E+03	.3931E+03
Stress	26	.1045E+04	-.1161E+04	.5805E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 22							
GLoads	26	.3170E+03	.1488E+03	.9026E+02	-.8333E+03	.4689E+02	.2266E+04
GLoads	27	-.3170E+03	-.1459E+03	-.9026E+02	.1194E+04	-.4689E+02	-.3534E+04
LLoads	26	.1488E+03	.9026E+02	.3170E+03	.4689E+02	.2266E+04	-.8333E+03
LLoads	27	-.1459E+03	-.9026E+02	-.3170E+03	-.4689E+02	-.3534E+04	.1194E+04
Stress	26	-.5766E+02	.3498E+02	.1229E+03	-.1724E+02	-.7098E+03	.3931E+03
Stress	26	.1045E+04	-.1161E+04	.5805E+03			
Stress	27	-.5653E+02	.3498E+02	.1229E+03	-.1724E+02	-.1107E+04	.5633E+03
Stress	27	.1614E+04	-.1727E+04	.8637E+03			
BEAM NO. 23							
GLoads	27	-.4160E+02	.1459E+03	.1281E+03	-.1194E+04	.4689E+02	.3534E+04
GLoads	28	.4160E+02	-.1407E+03	-.1281E+03	.2091E+04	-.4689E+02	-.3243E+04
LLoads	27	.1459E+03	.1281E+03	-.4160E+02	.4689E+02	.3534E+04	-.1194E+04
LLoads	28	-.1407E+03	-.1281E+03	.4160E+02	-.4689E+02	-.3243E+04	.2091E+04
Stress	27	-.5653E+02	.4966E+02	-.1612E+02	-.1724E+02	-.1107E+04	.5633E+03
Stress	27	.1614E+04	-.1727E+04	.8637E+03			
Stress	28	-.5455E+02	.4966E+02	-.1612E+02	-.1724E+02	-.1016E+04	.9864E+03
Stress	28	.1948E+04	-.2057E+04	.1029E+04			
BEAM NO. 24							
GLoads	28	-.4160E+02	.1407E+03	.1281E+03	-.2091E+04	.4689E+02	.3243E+04
GLoads	29	.4160E+02	-.1367E+03	-.1281E+03	.2796E+04	-.4689E+02	-.3014E+04
LLoads	28	.1407E+03	.1281E+03	-.4160E+02	.4689E+02	.3243E+04	-.2091E+04
LLoads	29	-.1367E+03	-.1281E+03	.4160E+02	-.4689E+02	-.3014E+04	.2796E+04
Stress	28	-.5455E+02	.4966E+02	-.1612E+02	-.1724E+02	-.1016E+04	.9864E+03
Stress	28	.1948E+04	-.2057E+04	.1029E+04			
Stress	29	-.5299E+02	.4966E+02	-.1612E+02	-.1724E+02	-.9442E+03	.1319E+04
Stress	29	.2210E+04	-.2316E+04	.1158E+04			
BEAM NO. 25							
GLoads	29	-.4160E+02	.1367E+03	.1281E+03	-.2796E+04	.4689E+02	.3014E+04
GLoads	30	.4160E+02	-.1327E+03	-.1281E+03	.3501E+04	-.4689E+02	-.2785E+04
LLoads	29	.1367E+03	.1281E+03	-.4160E+02	.4689E+02	.3014E+04	-.2796E+04
LLoads	30	-.1327E+03	-.1281E+03	.4160E+02	-.4689E+02	-.2785E+04	.3501E+04
Stress	29	-.5299E+02	.4966E+02	-.1612E+02	-.1724E+02	-.9442E+03	.1319E+04
Stress	29	.2210E+04	-.2316E+04	.1158E+04			
Stress	30	-.5144E+02	.4966E+02	-.1612E+02	-.1724E+02	-.8725E+03	.1651E+04
Stress	30	.2472E+04	-.2575E+04	.1288E+04			
BEAM NO. 26							
GLoads	30	-.4160E+02	.1327E+03	.1281E+03	-.3501E+04	.4689E+02	.2785E+04

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	31	.4160E+02	-.1287E+03	-.1281E+03	.4205E+04	-.4689E+02	-.2556E+04
LLoads	30	.1327E+03	.1281E+03	-.4160E+02	.4689E+02	.2785E+04	-.3501E+04
LLoads	31	-.1287E+03	-.1281E+03	.4160E+02	-.4689E+02	-.2556E+04	.4205E+04
Stress	30	-.5144E+02	.4966E+02	-.1612E+02	-.1724E+02	-.8725E+03	.1651E+04
Stress	30	.2472E+04	-.2575E+04	.1288E+04			
Stress	31	-.4988E+02	.4966E+02	-.1612E+02	-.1724E+02	-.8008E+03	.1984E+04
Stress	31	.2735E+04	-.2834E+04	.1417E+04			
BEAM NO. 27							
GLoads	31	-.4160E+02	.1287E+03	.1281E+03	-.4205E+04	.4689E+02	.2556E+04
GLoads	20	.4160E+02	-.1247E+03	-.1281E+03	.4910E+04	-.4689E+02	-.2327E+04
LLoads	31	.1287E+03	.1281E+03	-.4160E+02	.4689E+02	.2556E+04	-.4205E+04
LLoads	20	-.1247E+03	-.1281E+03	.4160E+02	-.4689E+02	-.2327E+04	.4910E+04
Stress	31	-.4988E+02	.4966E+02	-.1612E+02	-.1724E+02	-.8008E+03	.1984E+04
Stress	31	.2735E+04	-.2834E+04	.1417E+04			
Stress	20	-.4833E+02	.4966E+02	-.1612E+02	-.1724E+02	-.7292E+03	.2316E+04
Stress	20	.2997E+04	-.3094E+04	.1547E+04			
BEAM NO. 28							
GLoads	20	.2093E+03	.9984E+02	.1120E+02	.1908E+03	.3451E+03	-.3535E+04
GLoads	32	-.2093E+03	-.9582E+02	-.1120E+02	-.1291E+03	-.3451E+03	.2384E+04
LLoads	20	.9984E+02	.1120E+02	.2093E+03	.3451E+03	-.3535E+04	.1908E+03
LLoads	32	-.9582E+02	-.1120E+02	-.2093E+03	-.3451E+03	.2384E+04	-.1291E+03
Stress	20	-.3870E+02	.4342E+01	.8113E+02	-.1269E+03	.1107E+04	-.8998E+02
Stress	20	.1159E+04	-.1236E+04	.6309E+03			
Stress	32	-.3714E+02	.4342E+01	.8113E+02	-.1269E+03	.7468E+03	-.6092E+02
Stress	32	.7705E+03	-.8448E+03	.4411E+03			
BEAM NO. 29							
GLoads	32	.2093E+03	.9582E+02	.1120E+02	.1291E+03	.3451E+03	-.2384E+04
GLoads	33	-.2093E+03	-.9181E+02	-.1120E+02	-.6753E+02	-.3451E+03	.1232E+04
LLoads	32	.9582E+02	.1120E+02	.2093E+03	.3451E+03	-.2384E+04	.1291E+03
LLoads	33	-.9181E+02	-.1120E+02	-.2093E+03	-.3451E+03	.1232E+04	-.6753E+02
Stress	32	-.3714E+02	.4342E+01	.8113E+02	-.1269E+03	.7468E+03	-.6092E+02
Stress	32	.7705E+03	-.8448E+03	.4411E+03			
Stress	33	-.3558E+02	.4342E+01	.8113E+02	-.1269E+03	.3861E+03	-.3185E+02
Stress	33	.3824E+03	-.4535E+03	.2599E+03			
BEAM NO. 30							
GLoads	33	.2093E+03	.9181E+02	.1120E+02	.6753E+02	.3451E+03	-.1232E+04
GLoads	34	-.2093E+03	-.8779E+02	-.1120E+02	-.5916E+01	-.3451E+03	.8126E+02
LLoads	33	.9181E+02	.1120E+02	.2093E+03	.3451E+03	-.1232E+04	.6753E+02

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	34	-.8779E+02	-.1120E+02	-.2093E+03	-.3451E+03	.8126E+02	-.5916E+01
Stress	33	-.3558E+02	.4342E+01	.8113E+02	-.1269E+03	.3861E+03	-.3185E+02
Stress	33	.3824E+03	-.4535E+03	.2599E+03			
Stress	34	-.3403E+02	.4342E+01	.8113E+02	-.1269E+03	.2546E+02	-.2791E+01
Stress	34	-.5782E+01	-.6227E+02	.1306E+03			
BEAM NO. 31							
GLoads	34	.2093E+03	.8779E+02	.1120E+02	.5916E+01	.3451E+03	-.8126E+02
GLoads	21	-.2093E+03	-.8378E+02	-.1120E+02	.5570E+02	-.3451E+03	-.1070E+04
LLoads	34	.8779E+02	.1120E+02	.2093E+03	.3451E+03	-.8126E+02	.5916E+01
LLoads	21	-.8378E+02	-.1120E+02	-.2093E+03	-.3451E+03	-.1070E+04	.5570E+02
Stress	34	-.3403E+02	.4342E+01	.8113E+02	-.1269E+03	.2546E+02	-.2791E+01
Stress	34	-.5782E+01	-.6227E+02	.1306E+03			
Stress	21	-.3247E+02	.4342E+01	.8113E+02	-.1269E+03	-.3352E+03	.2627E+02
Stress	21	.3290E+03	-.3939E+03	.2343E+03			
BEAM NO. 32							
GLoads	44	-.2510E+03	-.1125E+04	-.9496E+02	.1632E+04	-.3564E+02	.5863E+04
GLoads	22	.2510E+03	.1130E+04	.9496E+02	-.1632E+04	-.8665E+03	.4849E+04
LLoads	44	.2510E+03	-.1125E+04	.9496E+02	-.1632E+04	-.3564E+02	-.5863E+04
LLoads	22	-.2510E+03	.1130E+04	-.9496E+02	.1632E+04	-.8665E+03	-.4849E+04
Stress	44	-.1578E+03	-.7078E+03	.5972E+02	.1200E+04	.4653E+02	.7654E+04
Stress	44	.7543E+04	-.7859E+04	.4108E+04			
Stress	22	-.1578E+03	-.7105E+03	.5972E+02	.1200E+04	-.1131E+04	-.6330E+04
Stress	22	.7304E+04	-.7619E+04	.3994E+04			
BEAM NO. 33							
GLoads	22	-.2510E+03	.4961E+03	.1071E+02	-.9262E+03	.5064E+03	-.4847E+04
GLoads	23	.2510E+03	-.4901E+03	-.1071E+02	.9262E+03	-.3635E+03	-.1732E+04
LLoads	22	.2510E+03	.4961E+03	-.1071E+02	.9262E+03	.5064E+03	.4847E+04
LLoads	23	-.2510E+03	-.4901E+03	.1071E+02	-.9262E+03	-.3635E+03	.1732E+04
Stress	22	-.1579E+03	.3120E+03	-.6738E+01	-.6810E+03	-.6611E+03	-.6327E+04
Stress	22	.6831E+04	-.7146E+04	.3637E+04			
Stress	23	-.1579E+03	.3083E+03	-.6738E+01	-.6810E+03	-.4746E+03	.2261E+04
Stress	23	.2577E+04	-.2893E+04	.1599E+04			
BEAM NO. 34							
GLoads	23	.2100E-01	.3709E+03	.3930E+02	-.1421E+04	-.5868E+02	-.1355E+04
GLoads	24	-.2100E-01	-.3692E+03	-.3930E+02	.1421E+04	.2025E+03	.6496E+00
LLoads	23	-.2100E-01	.3709E+03	-.3930E+02	.1421E+04	-.5868E+02	.1355E+04
LLoads	24	.2100E-01	-.3692E+03	.3930E+02	-.1421E+04	.2025E+03	-.6496E+00
Stress	23	.1321E-01	.2333E+03	-.2472E+02	-.1045E+04	.7661E+02	-.1769E+04
Stress	23	.1846E+04	-.1846E+04	.1394E+04			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	24	.1321E-01	.2322E+03	-.2472E+02	-.1045E+04	.2644E+03	-.8481E+00
Stress	24	.2653E+03	-.2652E+03	.1053E+04			
BEAM NO. 35							
GLoads	21	.2093E+03	.8378E+02	.1120E+02	-.5570E+02	.3451E+03	.1070E+04
GLoads	48	-.2093E+03	-.7110E+02	-.1120E+02	-.1908E+03	-.8925E+02	.1750E+04
LLoads	21	-.2089E+03	-.8487E+02	-.1120E+02	-.1993E+03	.2475E+03	-.7695E+03
LLoads	48	.2001E+03	.9400E+02	.1120E+02	.1993E+03	.6806E+02	-.1750E+04
Stress	21	.1314E+03	-.5337E+02	-.7046E+01	.1465E+03	-.3232E+03	.1005E+04
Stress	21	.1459E+04	-.1196E+04	.7441E+03			
Stress	48	.1258E+03	-.5912E+02	-.7046E+01	.1465E+03	.8885E+02	-.2285E+04
Stress	48	.2499E+04	-.2248E+04	.1258E+04			
BEAM NO. 36							
GLoads	43	.4170E+02	-.1700E+03	.1739E+02	-.7999E+02	.3043E+03	.9837E+03
GLoads	23	-.4170E+02	.1901E+03	-.1739E+02	.8277E+03	.9282E+02	.1337E+04
LLoads	43	-.1697E+03	-.4294E+02	-.1739E+02	.3063E+03	.3733E+02	-.8978E+03
LLoads	23	.1875E+03	.5237E+02	.1739E+02	-.3063E+03	.7397E+03	-.1232E+04
Stress	43	.1067E+03	-.2701E+02	-.1094E+02	-.2252E+03	-.4874E+02	.1172E+04
Stress	43	.1328E+04	-.1114E+04	.7010E+03			
Stress	23	.1179E+03	-.3294E+02	-.1094E+02	-.2252E+03	.9657E+03	-.1608E+04
Stress	23	.2692E+04	-.2456E+04	.1365E+04			
BEAM NO. 37							
GLoads	50	-.4618E-01	.1150E+04	-.2119E+03	.7109E+04	-.2373E+03	.6829E+00
GLoads	51	.4618E-01	-.3286E+03	.2119E+03	.3981E+04	.2380E+03	-.6829E+00
LLoads	50	.2119E+03	.1150E+04	-.4618E-01	-.6829E+00	-.2373E+03	.7109E+04
LLoads	51	-.2119E+03	-.3286E+03	.4618E-01	.6829E+00	.2380E+03	.3981E+04
Stress	50	-.1333E+03	.7233E+03	-.2905E-01	.5021E+00	.3098E+03	-.9281E+04
Stress	50	.9457E+04	-.9724E+04	.4862E+04			
Stress	51	-.1333E+03	.2067E+03	-.2905E-01	.5021E+00	.3107E+03	.5197E+04
Stress	51	.5374E+04	-.5641E+04	.2820E+04			
BEAM NO. 38							
GLoads	51	-.4618E-01	.3286E+03	-.2119E+03	-.3981E+04	-.2380E+03	.6829E+00
GLoads	52	.4618E-01	.3285E+03	.2119E+03	.3981E+04	.2385E+03	-.6829E+00
LLoads	51	.2119E+03	.3286E+03	-.4618E-01	-.6829E+00	-.2380E+03	-.3981E+04
LLoads	52	-.2119E+03	.3285E+03	.4618E-01	.6829E+00	.2385E+03	.3981E+04
Stress	51	-.1333E+03	.2067E+03	-.2905E-01	.5021E+00	.3107E+03	.5197E+04
Stress	51	.5374E+04	-.5641E+04	.2820E+04			
Stress	52	-.1333E+03	-.2066E+03	-.2905E-01	.5021E+00	.3114E+03	.5198E+04
Stress	52	.5376E+04	-.5642E+04	.2821E+04			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 39							
GLoads	52	-.4618E-01	-.3285E+03	-.2119E+03	-.3981E+04	-.2385E+03	.6829E+00
GLoads	45	.4618E-01	.1150E+04	.2119E+03	-.7107E+04	.2392E+03	-.6829E+00
LLoads	52	.2119E+03	-.3285E+03	-.4618E-01	-.6829E+00	-.2385E+03	-.3981E+04
LLoads	45	-.2119E+03	.1150E+04	.4618E-01	.6829E+00	.2392E+03	-.7107E+04
Stress	52	-.1333E+03	-.2066E+03	-.2905E-01	.5021E+00	.3114E+03	.5198E+04
Stress	52	.5376E+04	-.5642E+04	.2821E+04			
Stress	45	-.1333E+03	-.7232E+03	-.2905E-01	.5021E+00	.3123E+03	-.9278E+04
Stress	45	.9457E+04	-.9723E+04	.4862E+04			
BEAM NO. 40							
GLoads	41	-.2548E-01	.9451E+01	.7586E+03	.2057E+03	-.4996E+02	.6090E+00
GLoads	46	.2548E-01	.9448E+01	-.7586E+03	-.2056E+03	.5103E+02	-.6090E+00
LLoads	41	-.7586E+03	.9451E+01	-.2548E-01	-.6090E+00	-.4996E+02	.2057E+03
LLoads	46	.7586E+03	.9448E+01	.2548E-01	.6090E+00	.5103E+02	-.2056E+03
Stress	41	.4771E+03	.5944E+01	-.1602E-01	.4478E+00	.6522E+02	-.2685E+03
Stress	41	.8108E+03	.1434E+03	.4054E+03			
Stress	46	.4771E+03	-.5942E+01	-.1602E-01	.4478E+00	.6662E+02	-.2684E+03
Stress	46	.8122E+03	.1420E+03	.4061E+03			
BEAM NO. 41							
GLoads	42	-.2100E-01	.3689E+03	-.3930E+02	.1497E+04	.2034E+03	.6076E+00
GLoads	53	.2100E-01	-.1054E+03	.3930E+02	.2060E+04	-.2031E+03	-.6076E+00
LLoads	42	.3930E+02	.3689E+03	-.2100E-01	-.6076E+00	.2034E+03	.1497E+04
LLoads	53	-.3930E+02	-.1054E+03	.2100E-01	.6076E+00	-.2031E+03	.2060E+04
Stress	42	-.2472E+02	.2320E+03	-.1321E-01	.4468E+00	-.2656E+03	-.1955E+04
Stress	42	.2195E+04	-.2245E+04	.1122E+04			
Stress	53	-.2472E+02	.6627E+02	-.1321E-01	.4468E+00	-.2651E+03	.2689E+04
Stress	53	.2929E+04	-.2979E+04	.1489E+04			
BEAM NO. 42							
GLoads	53	-.2100E-01	.1054E+03	-.3930E+02	-.2060E+04	.2031E+03	.6076E+00
GLoads	54	.2100E-01	.1055E+03	.3930E+02	.2059E+04	-.2028E+03	-.6076E+00
LLoads	53	.3930E+02	.1054E+03	-.2100E-01	-.6076E+00	.2031E+03	-.2060E+04
LLoads	54	-.3930E+02	.1055E+03	.2100E-01	.6076E+00	-.2028E+03	.2059E+04
Stress	53	-.2472E+02	.6627E+02	-.1321E-01	.4468E+00	-.2651E+03	.2689E+04
Stress	53	.2929E+04	-.2979E+04	.1489E+04			
Stress	54	-.2472E+02	-.6634E+02	-.1321E-01	.4468E+00	-.2648E+03	.2688E+04
Stress	54	.2928E+04	-.2978E+04	.1489E+04			
BEAM NO. 43							
GLoads	54	-.2100E-01	-.1055E+03	-.3930E+02	-.2059E+04	.2028E+03	.6076E+00

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	49	.2100E-01	.3690E+03	.3930E+02	-.1500E+04	-.2025E+03	-.6076E+00
LLoads	54	.3930E+02	-.1055E+03	-.2100E-01	-.6076E+00	.2028E+03	-.2059E+04
LLoads	49	-.3930E+02	.3690E+03	.2100E-01	.6076E+00	-.2025E+03	-.1500E+04
Stress	54	-.2472E+02	-.6634E+02	-.1321E-01	.4468E+00	-.2648E+03	.2688E+04
Stress	54	.2928E+04	-.2978E+04	.1489E+04			
Stress	49	-.2472E+02	-.2321E+03	-.1321E-01	.4468E+00	-.2644E+03	-.1958E+04
Stress	49	.2197E+04	-.2247E+04	.1123E+04			
BEAM NO. 44							
GLoads	40	-.7467E-02	-.1636E+04	-.6529E+03	-.5586E+04	-.3087E+03	.1795E+01
GLoads	55	.7467E-02	.1639E+04	.6529E+03	-.9624E+03	.3087E+03	-.1795E+01
LLoads	40	.6529E+03	-.1636E+04	-.7467E-02	-.1795E+01	-.3087E+03	-.5586E+04
LLoads	55	-.6529E+03	.1639E+04	.7467E-02	.1795E+01	.3087E+03	-.9624E+03
Stress	40	-.2521E+03	-.6316E+03	-.2883E-02	.8955E+00	.1316E+03	.3628E+04
Stress	40	.3507E+04	-.4011E+04	.2006E+04			
Stress	55	-.2521E+03	-.6327E+03	-.2883E-02	.8955E+00	.1317E+03	-.6250E+03
Stress	55	.5045E+03	-.1009E+04	.5044E+03			
BEAM NO. 45							
GLoads	55	-.7467E-02	.1246E+02	-.6529E+03	.9624E+03	-.3087E+03	.1795E+01
GLoads	56	.7467E-02	.1246E+02	.6529E+03	-.9623E+03	.3090E+03	-.1795E+01
LLoads	55	.6529E+03	.1246E+02	-.7467E-02	-.1795E+01	-.3087E+03	.9624E+03
LLoads	56	-.6529E+03	.1246E+02	.7467E-02	.1795E+01	.3090E+03	-.9623E+03
Stress	55	-.2521E+03	.4812E+01	-.2883E-02	.8955E+00	.1317E+03	-.6250E+03
Stress	55	.5045E+03	-.1009E+04	.5044E+03			
Stress	56	-.2521E+03	-.4810E+01	-.2883E-02	.8955E+00	.1318E+03	-.6249E+03
Stress	56	.5045E+03	-.1009E+04	.5044E+03			
BEAM NO. 46							
GLoads	56	-.7467E-02	.1639E+04	-.6529E+03	.9623E+03	-.3090E+03	.1795E+01
GLoads	47	.7467E-02	-.1636E+04	.6529E+03	.5586E+04	.3090E+03	-.1795E+01
LLoads	56	.6529E+03	.1639E+04	-.7467E-02	-.1795E+01	-.3090E+03	.9623E+03
LLoads	47	-.6529E+03	-.1636E+04	.7467E-02	.1795E+01	.3090E+03	.5586E+04
Stress	56	-.2521E+03	.6327E+03	-.2883E-02	.8955E+00	.1318E+03	-.6249E+03
Stress	56	.5045E+03	-.1009E+04	.5044E+03			
Stress	47	-.2521E+03	.6315E+03	-.2883E-02	.8955E+00	.1318E+03	.3628E+04
Stress	47	.3507E+04	-.4011E+04	.2006E+04			
BEAM NO. 47							
GLoads	37	.1001E+00	.1133E+02	.9381E+02	.3538E+03	.4302E+03	-.7809E+02
GLoads	35	-.1001E+00	-.5749E+01	-.9381E+02	-.2833E+03	.4368E+03	-.8851E+00
LLoads	37	-.6252E+02	.1133E+02	-.6995E+02	-.2120E+03	.4302E+03	.2938E+03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	35	.6252E+02	-.5749E+01	.6995E+02	.2120E+03	.4368E+03	-.1879E+03
Stress	37	.3932E+02	.7124E+01	-.4399E+02	.1559E+03	-.5616E+03	-.3835E+03
Stress	37	.9844E+03	-.9058E+03	.5163E+03			
Stress	35	.3932E+02	.3616E+01	-.4399E+02	.1559E+03	.5702E+03	-.2453E+03
Stress	35	.8549E+03	-.7762E+03	.4550E+03			
BEAM NO. 48							
GLoads	35	.1001E+00	.5749E+01	.9381E+02	.2833E+03	-.4368E+03	.8851E+00
GLoads	36	-.1001E+00	.5725E+01	-.9381E+02	-.2830E+03	.4342E+03	-.8851E+00
LLoads	35	-.9381E+02	.5749E+01	.1001E+00	-.8851E+00	-.4368E+03	.2833E+03
LLoads	36	.9381E+02	.5725E+01	-.1001E+00	.8851E+00	.4342E+03	-.2830E+03
Stress	35	.5900E+02	.3616E+01	.6298E-01	.6508E+00	.5702E+03	-.3699E+03
Stress	35	.9991E+03	-.8811E+03	.4996E+03			
Stress	36	.5900E+02	-.3600E+01	.6298E-01	.6508E+00	.5669E+03	-.3695E+03
Stress	36	.9954E+03	-.8774E+03	.4977E+03			
BEAM NO. 49							
GLoads	36	.1001E+00	-.5725E+01	.9381E+02	.2830E+03	-.4342E+03	.8851E+00
GLoads	43	-.1001E+00	.1130E+02	-.9381E+02	-.3533E+03	-.4344E+03	-.7963E+02
LLoads	36	-.6237E+02	-.5725E+01	.7008E+02	.2106E+03	-.4342E+03	.1890E+03
LLoads	43	.6237E+02	.1130E+02	-.7008E+02	-.2106E+03	-.4344E+03	-.2946E+03
Stress	36	.3923E+02	-.3600E+01	.4408E+02	-.1549E+03	.5669E+03	-.2468E+03
Stress	36	.8529E+03	-.7744E+03	.4537E+03			
Stress	43	.3923E+02	-.7108E+01	.4408E+02	-.1549E+03	-.5671E+03	-.3846E+03
Stress	43	.9909E+03	-.9124E+03	.5191E+03			
BEAM NO. 50							
GLoads	1	.4211E+02	-.1592E+03	.7650E+02	.1171E+03	.4335E+02	.9068E+03
GLoads	37	-.4211E+02	.1594E+03	-.7650E+02	-.4356E+03	-.1276E+03	-.9068E+03
LLoads	1	-.7650E+02	-.1592E+03	.4211E+02	-.9068E+03	.4335E+02	.1171E+03
LLoads	37	.7650E+02	.1594E+03	-.4211E+02	.9068E+03	-.1276E+03	-.4356E+03
Stress	1	.7650E+00	-.1592E+01	.4211E+00	.9068E+00	-.4335E-01	-.1171E+00
Stress	1	.9255E+00	.6046E+00	.1018E+01			
Stress	37	.7650E+00	-.1594E+01	.4211E+00	.9068E+00	-.1276E+00	-.4356E+00
Stress	37	.1328E+01	.2019E+00	.1124E+01			
BEAM NO. 51							
GLoads	3	-.2516E+03	.2529E+02	-.1170E+03	.5104E+04	.3019E+03	.5863E+04
GLoads	38	.2516E+03	-.2509E+02	.1170E+03	-.5053E+04	.2013E+03	-.5863E+04
LLoads	3	.1170E+03	.2529E+02	-.2516E+03	-.5863E+04	.3019E+03	.5104E+04
LLoads	38	-.1170E+03	-.2509E+02	.2516E+03	.5863E+04	.2013E+03	-.5053E+04
Stress	3	-.1170E+01	.2529E+00	-.2516E+01	.5863E+01	-.3019E+00	-.5104E+01
Stress	3	.4236E+01	-.6576E+01	.6722E+01			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	38	-.1170E+01	.2509E+00	-.2516E+01	.5863E+01	.2013E+00	-.5053E+01
Stress	38	.4085E+01	-.6425E+01	.6685E+01			
BEAM NO. 52							
GLoads	6	-.2095E+03	-.7107E+02	.1122E+02	.3335E+03	-.3301E+03	.1750E+04
GLoads	39	.2095E+03	.7127E+02	-.1122E+02	-.1912E+03	-.8890E+02	-.1750E+04
LLoads	6	.1122E+02	-.7107E+02	.2095E+03	.1750E+04	-.3301E+03	-.3335E+03
LLoads	39	-.1122E+02	.7127E+02	-.2095E+03	-.1750E+04	-.8890E+02	.1912E+03
Stress	6	-.1122E+00	-.7107E+00	.2095E+01	-.1750E+01	.3301E+00	.3335E+00
Stress	6	.5514E+00	-.7758E+00	.1792E+01			
Stress	39	-.1122E+00	-.7127E+00	.2095E+01	-.1750E+01	-.8890E-01	.1912E+00
Stress	39	.1679E+00	-.3923E+00	.1761E+01			
BEAM NO. 53							
GLoads	18	.4160E+02	-.1585E+03	-.7643E+02	-.1160E+03	-.4689E+02	.9041E+03
GLoads	43	-.4160E+02	.1587E+03	.7643E+02	.4333E+03	.1301E+03	-.9041E+03
LLoads	18	-.7643E+02	-.1585E+03	-.4160E+02	.9041E+03	-.4689E+02	.1160E+03
LLoads	43	.7643E+02	.1587E+03	.4160E+02	-.9041E+03	.1301E+03	-.4333E+03
Stress	18	.7643E+00	-.1585E+01	-.4160E+00	-.9041E+00	.4689E-01	-.1160E+00
Stress	18	.9271E+00	.6014E+00	.1016E+01			
Stress	43	.7643E+00	-.1587E+01	-.4160E+00	-.9041E+00	.1301E+00	-.4333E+00
Stress	43	.1328E+01	.2009E+00	.1122E+01			
BEAM NO. 54							
GLoads	20	-.2509E+03	.2484E+02	.1169E+03	-.5101E+04	-.2982E+03	.5862E+04
GLoads	44	.2509E+03	-.2464E+02	-.1169E+03	.5051E+04	-.2036E+03	-.5862E+04
LLoads	20	.1169E+03	.2484E+02	.2509E+03	.5862E+04	-.2982E+03	.5101E+04
LLoads	44	-.1169E+03	-.2464E+02	-.2509E+03	-.5862E+04	-.2036E+03	-.5051E+04
Stress	20	-.1169E+01	.2484E+00	.2509E+01	-.5862E+01	.2982E+00	-.5101E+01
Stress	20	.4230E+01	-.6568E+01	.6720E+01			
Stress	44	-.1169E+01	.2464E+00	.2509E+01	-.5862E+01	-.2036E+00	-.5051E+01
Stress	44	.4086E+01	-.6424E+01	.6685E+01			
BEAM NO. 55							
GLoads	23	-.2093E+03	-.7090E+02	-.1120E+02	-.3328E+03	.3294E+03	.1750E+04
GLoads	48	.2093E+03	.7110E+02	.1120E+02	.1908E+03	.8925E+02	-.1750E+04
LLoads	23	.1120E+02	-.7090E+02	-.2093E+03	-.1750E+04	.3294E+03	-.3328E+03
LLoads	48	-.1120E+02	.7110E+02	.2093E+03	.1750E+04	.8925E+02	.1908E+03
Stress	23	-.1120E+00	-.7090E+00	-.2093E+01	.1750E+01	-.3294E+00	.3328E+00
Stress	23	.5501E+00	-.7742E+00	.1792E+01			
Stress	48	-.1120E+00	-.7110E+00	-.2093E+01	.1750E+01	.8925E-01	.1908E+00
Stress	48	.1680E+00	-.3920E+00	.1761E+01			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 56							
GLoads	38	-.4618E-01	.1150E+04	-.2119E+03	.6685E+04	-.2373E+03	.7753E+00
GLoads	50	.4618E-01	-.1150E+04	.2119E+03	-.7109E+04	.2373E+03	-.6829E+00
LLoads	38	.1150E+04	-.2119E+03	-.4618E-01	-.2373E+03	.7753E+00	.6685E+04
LLoads	50	-.1150E+04	.2119E+03	.4618E-01	.2373E+03	-.6829E+00	-.7109E+04
Stress	38	-.1150E+02	-.2119E+01	-.4618E-03	.2373E+00	-.7753E-03	-.6685E+01
Stress	38	-.4816E+01	-.1819E+02	.9097E+01			
Stress	50	-.1150E+02	-.2119E+01	-.4618E-03	.2373E+00	-.6829E-03	-.7109E+01
Stress	50	-.4390E+01	-.1861E+02	.9308E+01			
BEAM NO. 57							
GLoads	5	-.7466E-02	-.1636E+04	-.6529E+03	-.4281E+04	-.3087E+03	.1781E+01
GLoads	40	.7466E-02	.1636E+04	.6529E+03	.5586E+04	.3087E+03	-.1795E+01
LLoads	5	.1636E+04	-.6529E+03	.7466E-02	.3087E+03	.1781E+01	.4281E+04
LLoads	40	-.1636E+04	.6529E+03	-.7466E-02	-.3087E+03	-.1795E+01	-.5586E+04
Stress	5	-.1636E+02	-.6529E+01	.7466E-04	-.3087E+00	-.1781E-02	-.4281E+01
Stress	5	-.1207E+02	-.2064E+02	.1032E+02			
Stress	40	-.1636E+02	-.6529E+01	.7466E-04	-.3087E+00	-.1795E-02	-.5586E+01
Stress	40	-.1077E+02	-.2195E+02	.1098E+02			
BEAM NO. 58							
GLoads	5	-.2548E-01	.9651E+01	.7586E+03	.1723E+04	-.4996E+02	.6600E+00
GLoads	41	.2548E-01	-.9451E+01	-.7586E+03	-.2057E+03	.4996E+02	-.6090E+00
LLoads	5	.9651E+01	.7586E+03	-.2548E-01	-.4996E+02	.6600E+00	.1723E+04
LLoads	41	-.9451E+01	-.7586E+03	.2548E-01	.4996E+02	-.6090E+00	-.2057E+03
Stress	5	-.9651E-01	.7586E+01	-.2548E-03	.4996E-01	-.6600E-03	-.1723E+01
Stress	5	.1627E+01	-.1820E+01	.9114E+00			
Stress	41	-.9451E-01	.7586E+01	-.2548E-03	.4996E-01	-.6090E-03	-.2057E+00
Stress	41	.1118E+00	-.3008E+00	.1585E+00			
BEAM NO. 59							
GLoads	7	-.2101E-01	.3691E+03	-.3930E+02	.1419E+04	.2034E+03	.6496E+00
GLoads	42	.2101E-01	-.3689E+03	.3930E+02	-.1497E+04	-.2034E+03	-.6076E+00
LLoads	7	.3691E+03	-.3930E+02	-.2101E-01	.2034E+03	.6496E+00	.1419E+04
LLoads	42	-.3689E+03	.3930E+02	.2101E-01	-.2034E+03	-.6076E+00	-.1497E+04
Stress	7	-.3691E+01	-.3930E+00	-.2101E-03	-.2034E+00	-.6496E-03	-.1419E+01
Stress	7	-.2272E+01	-.5110E+01	.2563E+01			
Stress	42	-.3689E+01	-.3930E+00	-.2101E-03	-.2034E+00	-.6076E-03	-.1497E+01
Stress	42	-.2191E+01	-.5187E+01	.2601E+01			
BEAM NO. 60							
GLoads	44	.4618E-01	.1150E+04	.2119E+03	-.6683E+04	.2392E+03	-.7753E+00

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

GLoads	45	-.4618E-01	-.1150E+04	-.2119E+03	.7107E+04	-.2392E+03	.6829E+00
LLoads	44	.1150E+04	.2119E+03	.4618E-01	.2392E+03	-.7753E+00	-.6683E+04
LLoads	45	-.1150E+04	-.2119E+03	-.4618E-01	-.2392E+03	.6829E+00	.7107E+04
Stress	44	-.1150E+02	.2119E+01	.4618E-03	-.2392E+00	.7753E-03	.6683E+01
Stress	44	-.4817E+01	-.1818E+02	.9095E+01			
Stress	45	-.1150E+02	.2119E+01	.4618E-03	-.2392E+00	.6829E-03	.7107E+01
Stress	45	-.4392E+01	-.1861E+02	.9306E+01			
BEAM NO. 61							
GLoads	22	.2548E-01	.9648E+01	-.7586E+03	-.1723E+04	.5103E+02	-.6600E+00
GLoads	46	-.2548E-01	-.9448E+01	.7586E+03	.2056E+03	-.5103E+02	.6090E+00
LLoads	22	.9648E+01	-.7586E+03	.2548E-01	.5103E+02	-.6600E+00	-.1723E+04
LLoads	46	-.9448E+01	.7586E+03	-.2548E-01	-.5103E+02	.6090E+00	.2056E+03
Stress	22	-.9648E-01	-.7586E+01	.2548E-03	-.5103E-01	.6600E-03	.1723E+01
Stress	22	.1627E+01	-.1820E+01	.9114E+00			
Stress	46	-.9448E-01	-.7586E+01	.2548E-03	-.5103E-01	.6090E-03	.2056E+00
Stress	46	.1118E+00	-.3007E+00	.1588E+00			
BEAM NO. 62							
GLoads	22	.7466E-02	-.1636E+04	.6529E+03	.4281E+04	.3090E+03	-.1781E+01
GLoads	47	-.7466E-02	.1636E+04	-.6529E+03	-.5586E+04	-.3090E+03	.1795E+01
LLoads	22	.1636E+04	.6529E+03	-.7466E-02	-.3090E+03	-.1781E+01	-.4281E+04
LLoads	47	-.1636E+04	-.6529E+03	.7466E-02	.3090E+03	.1795E+01	.5586E+04
Stress	22	-.1636E+02	.6529E+01	-.7466E-04	.3090E+00	.1781E-02	.4281E+01
Stress	22	-.1207E+02	-.2064E+02	.1032E+02			
Stress	47	-.1636E+02	.6529E+01	-.7466E-04	.3090E+00	.1795E-02	.5586E+01
Stress	47	-.1077E+02	-.2195E+02	.1098E+02			
BEAM NO. 63							
GLoads	24	.2101E-01	.3692E+03	.3930E+02	-.1421E+04	-.2025E+03	-.6496E+00
GLoads	49	-.2101E-01	-.3690E+03	-.3930E+02	.1500E+04	.2025E+03	.6076E+00
LLoads	24	.3692E+03	.3930E+02	.2101E-01	-.2025E+03	-.6496E+00	-.1421E+04
LLoads	49	-.3690E+03	-.3930E+02	-.2101E-01	.2025E+03	.6076E+00	.1500E+04
Stress	24	-.3692E+01	.3930E+00	.2101E-03	.2025E+00	.6496E-03	.1421E+01
Stress	24	-.2271E+01	-.5114E+01	.2565E+01			
Stress	49	-.3690E+01	.3930E+00	.2101E-03	.2025E+00	.6076E-03	.1500E+01
Stress	49	-.2190E+01	-.5191E+01	.2603E+01			
BEAM NO. 64							
GLoads	57	.3407E+02	-.1116E+03	.1830E+02	.5795E+02	-.1107E+02	.2560E+04
GLoads	81	-.3407E+02	.1118E+03	-.1830E+02	-.2134E+02	.1107E+02	-.2628E+04
LLoads	57	-.1116E+03	.1830E+02	.3407E+02	-.1107E+02	.2560E+04	.5795E+02

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	81	.1118E+03	-.1830E+02	-.3407E+02	.1107E+02	-.2628E+04	-.2134E+02
Stress	57	.1116E+01	.1830E+00	.3407E+00	.1107E-01	-.2560E+01	-.5795E-01
Stress	57	.3733E+01	-.1502E+01	.1867E+01			
Stress	81	.1118E+01	.1830E+00	.3407E+00	.1107E-01	-.2628E+01	-.2134E-01
Stress	81	.3767E+01	-.1531E+01	.1883E+01			
BEAM NO. 65							
GLoads	58	-.1857E-05	.1875E+02	-.5170E+02	-.7155E+03	.2412E-05	.5041E+04
GLoads	59	.1857E-05	-.1762E+02	.5170E+02	.6573E+03	-.2412E-05	-.5041E+04
LLoads	58	.1875E+02	-.5170E+02	-.1857E-05	.2412E-05	.5041E+04	-.7155E+03
LLoads	59	-.1762E+02	.5170E+02	.1857E-05	-.2412E-05	-.5041E+04	.6573E+03
Stress	58	-.5310E+01	-.1465E+02	-.5260E-06	-.4824E-04	-.8088E+03	.6848E+03
Stress	58	.1488E+04	-.1499E+04	.7495E+03			
Stress	59	-.4992E+01	-.1465E+02	-.5260E-06	-.4824E-04	-.8088E+03	.6292E+03
Stress	59	.1433E+04	-.1443E+04	.7215E+03			
BEAM NO. 66							
GLoads	59	-.1868E-05	.1762E+02	-.3784E+02	-.6573E+03	.2412E-05	.5041E+04
GLoads	60	.1868E-05	-.1425E+02	.3784E+02	.5296E+03	-.2412E-05	-.5041E+04
LLoads	59	.1762E+02	-.3784E+02	-.1868E-05	.2412E-05	.5041E+04	-.6573E+03
LLoads	60	-.1425E+02	.3784E+02	.1868E-05	-.2412E-05	-.5041E+04	.5296E+03
Stress	59	-.4992E+01	-.1072E+02	-.5292E-06	-.4824E-04	-.8088E+03	.6292E+03
Stress	59	.1433E+04	-.1443E+04	.7215E+03			
Stress	60	-.4037E+01	-.1072E+02	-.5292E-06	-.4824E-04	-.8088E+03	.5069E+03
Stress	60	.1312E+04	-.1320E+04	.6599E+03			
BEAM NO. 67							
GLoads	60	-.3601E+03	.1412E+02	-.3784E+02	-.5297E+03	.4753E+03	.5041E+04
GLoads	61	.3601E+03	-.1320E+00	.3784E+02	-.8712E-01	-.4753E+03	.8946E-10
LLoads	60	.1412E+02	-.3784E+02	-.3601E+03	.4753E+03	.5041E+04	-.5297E+03
LLoads	61	-.1320E+00	.3784E+02	.3601E+03	-.4753E+03	.8946E-10	-.8712E-01
Stress	60	-.3999E+01	-.1072E+02	-.1020E+03	-.9507E+04	-.8088E+03	.5070E+03
Stress	60	.1312E+04	-.1320E+04	.9530E+04			
Stress	61	-.3739E-01	-.1072E+02	-.1020E+03	-.9507E+04	.1435E-10	-.8339E-01
Stress	61	.4600E-01	-.1208E+00	.9507E+04			
BEAM NO. 68							
GLoads	63	.3388E+02	-.1106E+03	-.1835E+02	-.6004E+02	.1102E+02	.2553E+04
GLoads	82	-.3388E+02	.1108E+03	.1835E+02	.2334E+02	-.1102E+02	-.2621E+04
LLoads	63	-.1106E+03	-.1835E+02	.3388E+02	.1102E+02	.2553E+04	-.6004E+02
LLoads	82	.1108E+03	.1835E+02	-.3388E+02	-.1102E+02	-.2621E+04	.2334E+02
Stress	63	.1106E+01	-.1835E+00	.3388E+00	-.1102E-01	-.2553E+01	.6004E-01
Stress	63	.3719E+01	-.1507E+01	.1860E+01			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	82	.1108E+01	-.1835E+00	.3388E+00	-.1102E-01	-.2621E+01	.2334E-01
Stress	82	.3752E+01	-.1536E+01	.1876E+01			
BEAM NO. 69							
GLoads	64	-.7597E-06	.1875E+02	.5170E+02	.7160E+03	-.9629E-06	.5020E+04
GLoads	65	.7597E-06	-.1762E+02	-.5170E+02	-.6578E+03	.9629E-06	-.5020E+04
LLoads	64	.1875E+02	.5170E+02	-.7597E-06	-.9629E-06	.5020E+04	.7160E+03
LLoads	65	-.1762E+02	-.5170E+02	.7597E-06	.9629E-06	-.5020E+04	-.6578E+03
Stress	64	-.5311E+01	.1465E+02	-.2152E-06	.1926E-04	-.8054E+03	-.6854E+03
Stress	64	.1485E+04	-.1496E+04	.7480E+03			
Stress	65	-.4992E+01	.1465E+02	-.2152E-06	.1926E-04	-.8054E+03	-.6297E+03
Stress	65	.1430E+04	-.1440E+04	.7200E+03			
BEAM NO. 70							
GLoads	65	-.7777E-06	.1762E+02	.3787E+02	.6578E+03	-.9629E-06	.5020E+04
GLoads	66	.7777E-06	-.1425E+02	-.3787E+02	-.5300E+03	.9629E-06	-.5020E+04
LLoads	65	.1762E+02	.3787E+02	-.7777E-06	-.9629E-06	.5020E+04	.6578E+03
LLoads	66	-.1425E+02	-.3787E+02	.7777E-06	.9629E-06	-.5020E+04	-.5300E+03
Stress	65	-.4992E+01	.1073E+02	-.2203E-06	.1926E-04	-.8054E+03	-.6297E+03
Stress	65	.1430E+04	-.1440E+04	.7200E+03			
Stress	66	-.4037E+01	.1073E+02	-.2203E-06	.1926E-04	-.8054E+03	-.5073E+03
Stress	66	.1309E+04	-.1317E+04	.6584E+03			
BEAM NO. 71							
GLoads	66	-.3586E+03	.1412E+02	.3787E+02	.5301E+03	-.4769E+03	.5020E+04
GLoads	67	.3586E+03	-.1330E+00	-.3787E+02	.8844E-01	.4769E+03	.5504E-10
LLoads	66	.1412E+02	.3787E+02	-.3586E+03	-.4769E+03	.5020E+04	.5301E+03
LLoads	67	-.1330E+00	-.3787E+02	.3586E+03	.4769E+03	.5504E-10	.8844E-01
Stress	66	-.4000E+01	.1073E+02	-.1016E+03	.9538E+04	-.8054E+03	-.5074E+03
Stress	66	.1309E+04	-.1317E+04	.9561E+04			
Stress	67	-.3768E-01	.1073E+02	-.1016E+03	.9538E+04	.8830E-11	.8466E-01
Stress	67	.4698E-01	-.1223E+00	.9538E+04			
BEAM NO. 72							
GLoads	57	-.3407E+02	.1116E+03	-.1830E+02	-.5795E+02	.1107E+02	-.2560E+04
GLoads	69	.3407E+02	-.1021E+03	.1830E+02	.8398E+03	.2384E+03	.2560E+04
LLoads	57	.1830E+02	.1116E+03	-.3407E+02	.2560E+04	.1107E+02	-.5795E+02
LLoads	69	-.1830E+02	-.1021E+03	.3407E+02	-.2560E+04	.2384E+03	.8398E+03
Stress	57	-.3988E+01	.2431E+02	-.7423E+01	-.3072E+03	-.1502E+01	.9906E+01
Stress	57	.7420E+01	-.1540E+02	.3072E+03			
Stress	69	-.3988E+01	.2224E+02	-.7423E+01	-.3072E+03	.3236E+02	.1436E+03
Stress	69	.1719E+03	-.1799E+03	.3201E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 73							
GLoads	69	-.3407E+02	.1021E+03	-.1830E+02	-.8398E+03	-.2384E+03	-.2560E+04
GLoads	70	.3407E+02	-.9427E+02	.1830E+02	.1429E+04	.4428E+03	.2560E+04
LLoads	69	.1830E+02	.1021E+03	-.3407E+02	.2560E+04	-.2384E+03	-.8398E+03
LLoads	70	-.1830E+02	-.9427E+02	.3407E+02	-.2560E+04	.4428E+03	.1429E+04
Stress	69	-.3988E+01	.2224E+02	-.7423E+01	-.3072E+03	.3236E+02	.1436E+03
Stress	69	.1719E+03	-.1799E+03	.3201E+03			
Stress	70	-.3988E+01	.2054E+02	-.7423E+01	-.3072E+03	.6011E+02	.2442E+03
Stress	70	.3004E+03	-.3083E+03	.3437E+03			
BEAM NO. 74							
GLoads	70	.9786E-01	.1383E+02	.0000E+00	-.1429E+04	-.4428E+03	.0000E+00
GLoads	71	-.9786E-01	.1475E+02	.0000E+00	.1419E+04	.4406E+03	.0000E+00
LLoads	70	.0000E+00	.1383E+02	.9786E-01	.0000E+00	-.4428E+03	-.1429E+04
LLoads	71	.0000E+00	.1475E+02	-.9786E-01	.0000E+00	.4406E+03	.1419E+04
Stress	70	.0000E+00	.3013E+01	.2132E-01	.0000E+00	.6011E+02	.2442E+03
Stress	70	.3043E+03	-.3043E+03	.1522E+03			
Stress	71	.0000E+00	-.3213E+01	.2132E-01	.0000E+00	.5982E+02	.2425E+03
Stress	71	.3023E+03	-.3023E+03	.1512E+03			
BEAM NO. 75							
GLoads	71	.3388E+02	-.9326E+02	-.1835E+02	-.1419E+04	-.4406E+03	.2553E+04
GLoads	72	-.3388E+02	.1011E+03	.1835E+02	.8357E+03	.2373E+03	-.2553E+04
LLoads	71	.1835E+02	-.9326E+02	.3388E+02	-.2553E+04	-.4406E+03	-.1419E+04
LLoads	72	-.1835E+02	.1011E+03	-.3388E+02	.2553E+04	.2373E+03	.8357E+03
Stress	71	-.3998E+01	-.2032E+02	.7382E+01	.3064E+03	.5982E+02	.2425E+03
Stress	71	.2983E+03	-.3063E+03	.3425E+03			
Stress	72	-.3998E+01	-.2202E+02	.7382E+01	.3064E+03	.3222E+02	.1429E+03
Stress	72	.1711E+03	-.1791E+03	.3192E+03			
BEAM NO. 76							
GLoads	72	.3388E+02	-.1011E+03	-.1835E+02	-.8357E+03	-.2373E+03	.2553E+04
GLoads	63	-.3388E+02	.1106E+03	.1835E+02	.6004E+02	-.1102E+02	-.2553E+04
LLoads	72	.1835E+02	-.1011E+03	.3388E+02	-.2553E+04	-.2373E+03	-.8357E+03
LLoads	63	-.1835E+02	.1106E+03	-.3388E+02	.2553E+04	-.1102E+02	.6004E+02
Stress	72	-.3998E+01	-.2202E+02	.7382E+01	.3064E+03	.3222E+02	.1429E+03
Stress	72	.1711E+03	-.1791E+03	.3192E+03			
Stress	63	-.3998E+01	-.2409E+02	.7382E+01	.3064E+03	-.1496E+01	.1026E+02
Stress	63	.7762E+01	-.1576E+02	.3065E+03			
BEAM NO. 77							
GLoads	62	.3407E+02	-.1764E+03	.7000E+02	-.9604E+02	.2690E+03	-.1587E+03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	75	-.3407E+02	.1807E+03	-.7000E+02	-.1211E+04	-.5184E+03	.1587E+03
LLoads	62	-.7000E+02	-.1764E+03	.3407E+02	.1587E+03	.2690E+03	-.9604E+02
Stress	75	.7000E+02	.1807E+03	-.3407E+02	-.1587E+03	-.5184E+03	-.1211E+04
Stress	62	.3350E+02	-.8439E+02	.1630E+02	-.9050E+02	-.2339E+03	.6519E+02
Stress	62	.3326E+03	-.2656E+03	.1893E+03			
Stress	75	.3350E+02	-.8646E+02	.1630E+02	-.9050E+02	-.4508E+03	-.8218E+03
Stress	75	.1306E+04	-.1239E+04	.6593E+03			
BEAM NO. 78							
GLoads	75	-.8626E-02	.1017E+02	.8500E+02	.7756E+03	.3960E+03	-.6711E+00
GLoads	78	.8626E-02	.9941E+01	-.8500E+02	-.7718E+03	-.3957E+03	.6711E+00
LLoads	75	-.8500E+02	.1017E+02	-.8626E-02	.6711E+00	.3960E+03	.7756E+03
LLoads	78	.8500E+02	.9941E+01	.8626E-02	-.6711E+00	-.3957E+03	-.7718E+03
Stress	75	.4067E+02	.4866E+01	-.4127E-02	-.3828E+00	-.3444E+03	-.5264E+03
Stress	75	.9115E+03	-.8301E+03	.4557E+03			
Stress	78	.4067E+02	-.4756E+01	-.4127E-02	-.3828E+00	-.3441E+03	-.5238E+03
Stress	78	.9086E+03	-.8273E+03	.4543E+03			
BEAM NO. 79							
GLoads	78	-.3388E+02	.1797E+03	.7005E+02	.1206E+04	.5175E+03	.1570E+03
GLoads	68	.3388E+02	-.1754E+03	-.7005E+02	.9560E+02	-.2692E+03	-.1570E+03
LLoads	78	-.7005E+02	.1797E+03	-.3388E+02	-.1570E+03	.5175E+03	.1206E+04
LLoads	68	.7005E+02	-.1754E+03	.3388E+02	.1570E+03	-.2692E+03	.9560E+02
Stress	78	.3352E+02	.8599E+02	-.1621E+02	.8952E+02	-.4500E+03	-.8184E+03
Stress	78	.1302E+04	-.1235E+04	.6571E+03			
Stress	68	.3352E+02	.8391E+02	-.1621E+02	.8952E+02	-.2341E+03	.6489E+02
Stress	68	.3325E+03	-.2654E+03	.1888E+03			
BEAM NO. 80							
GLoads	75	.3408E+02	-.1909E+03	-.1499E+02	.4352E+03	.1223E+03	-.1580E+03
GLoads	76	-.3408E+02	.2144E+03	.1499E+02	.3371E+03	.1261E+02	.8958E+02
LLoads	75	.1939E+03	.7161E+00	-.1499E+02	-.4561E+02	.4497E+03	-.1580E+03
LLoads	76	-.2171E+03	.3334E+01	.1499E+02	.4561E+02	.3342E+03	.8958E+02
Stress	75	-.1219E+03	.4504E+00	-.9431E+01	.3353E+02	-.5871E+03	.2063E+03
Stress	75	.6715E+03	-.9153E+03	.4589E+03			
Stress	76	-.1365E+03	-.2097E+01	-.9431E+01	.3353E+02	.4363E+03	.1169E+03
Stress	76	.4167E+03	-.6897E+03	.3465E+03			
BEAM NO. 81							
GLoads	76	.3408E+02	-.2144E+03	-.1499E+02	-.3371E+03	-.1261E+02	-.8958E+02
GLoads	77	-.3408E+02	.2171E+03	.1499E+02	-.9574E+03	-.1919E+03	.8958E+02
LLoads	76	.1499E+02	-.2171E+03	-.3334E+01	.8958E+02	.4561E+02	-.3342E+03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	77	-.1499E+02	.2197E+03	.3798E+01	-.8958E+02	-.2421E+02	-.9761E+03
Stress	76	-.9431E+01	-.1365E+03	-.2097E+01	-.6587E+02	-.5954E+02	.4363E+03
Stress	76	.4864E+03	-.5053E+03	.2611E+03			
Stress	77	-.9431E+01	-.1382E+03	-.2389E+01	-.6587E+02	-.3161E+02	-.1274E+04
Stress	77	.1296E+04	-.1315E+04	.6610E+03			
BEAM NO. 82							
GLoads	78	.3387E+02	-.1897E+03	.1495E+02	-.4341E+03	-.1218E+03	-.1576E+03
GLoads	79	-.3387E+02	.2132E+03	-.1495E+02	-.3358E+03	-.1272E+02	.8936E+02
LLoads	78	.1927E+03	.7192E+00	.1495E+02	.4527E+02	-.4486E+03	-.1576E+03
LLoads	79	-.2158E+03	.3331E+01	-.1495E+02	-.4527E+02	-.3330E+03	.8936E+02
Stress	78	-.1212E+03	.4523E+00	.9402E+01	-.3329E+02	.5856E+03	.2058E+03
Stress	78	.6702E+03	-.9125E+03	.4575E+03			
Stress	79	-.1357E+03	-.2095E+01	.9402E+01	-.3329E+02	-.4347E+03	.1167E+03
Stress	79	.4156E+03	-.6871E+03	.3452E+03			
BEAM NO. 83							
GLoads	79	.3387E+02	-.2132E+03	.1495E+02	.3358E+03	.1272E+02	-.8936E+02
GLoads	80	-.3387E+02	.2159E+03	-.1495E+02	.9514E+03	.1905E+03	.8936E+02
LLoads	79	.1495E+02	-.2158E+03	.3331E+01	-.8936E+02	-.4527E+02	-.3330E+03
LLoads	80	-.1495E+02	.2185E+03	-.3795E+01	.8936E+02	.2390E+02	-.9700E+03
Stress	79	-.9402E+01	-.1357E+03	.2095E+01	.6571E+02	.5910E+02	.4347E+03
Stress	79	.4844E+03	-.5032E+03	.2600E+03			
Stress	80	-.9402E+01	-.1374E+03	.2387E+01	.6571E+02	.3120E+02	-.1266E+04
Stress	80	.1288E+04	-.1307E+04	.6568E+03			
BEAM NO. 84							
GLoads	58	.3407E+02	-.1760E+03	.7000E+02	-.9604E+02	-.1107E+02	-.8633E+03
GLoads	62	-.3407E+02	.1764E+03	-.7000E+02	.9604E+02	-.2690E+03	.1587E+03
LLoads	58	.3407E+02	-.1760E+03	.7000E+02	-.9604E+02	-.1107E+02	-.8633E+03
LLoads	62	-.3407E+02	.1764E+03	-.7000E+02	.9604E+02	-.2690E+03	.1587E+03
Stress	58	-.3407E+00	-.1760E+01	.7000E+00	.9604E-01	.1107E-01	.8633E+00
Stress	58	.5337E+00	-.1215E+01	.6151E+00			
Stress	62	-.3407E+00	-.1764E+01	.7000E+00	.9604E-01	-.2690E+00	.1587E+00
Stress	62	.8689E-01	-.7684E+00	.3960E+00			
BEAM NO. 85							
GLoads	64	.3388E+02	-.1750E+03	-.7005E+02	.9560E+02	.1102E+02	-.8577E+03
GLoads	68	-.3388E+02	.1754E+03	.7005E+02	-.9560E+02	.2692E+03	.1570E+03
LLoads	64	.3388E+02	-.1750E+03	-.7005E+02	.9560E+02	.1102E+02	-.8577E+03
LLoads	68	-.3388E+02	.1754E+03	.7005E+02	-.9560E+02	.2692E+03	.1570E+03
Stress	64	-.3388E+00	-.1750E+01	-.7005E+00	-.9560E-01	-.1102E-01	.8577E+00
Stress	64	.5299E+00	-.1208E+01	.6113E+00			

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	68	-.3388E+00	-.1754E+01	-.7005E+00	-.9560E-01	.2692E+00	.1570E+00
Stress	68	.8731E-01	-.7650E+00	.3943E+00			
BEAM NO. 88							
GLoads	1	-.3601E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	60	.3601E+03	.1320E+00	.0000E+00	.8712E-01	-.4753E+03	.0000E+00
LLoads	1	.0000E+00	.0000E+00	.3601E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	60	.0000E+00	.1320E+00	-.3601E+03	.0000E+00	-.4753E+03	-.8712E-01
Stress	1	.0000E+00	.0000E+00	.3601E+01	.0000E+00	.0000E+00	.0000E+00
Stress	1	.0000E+00	.0000E+00	.0000E+00			
Stress	60	.0000E+00	-.1320E-02	.3601E+01	.0000E+00	-.4753E+00	-.8712E-04
Stress	60	.4754E+00	-.4754E+00	.2377E+00			
BEAM NO. 89							
GLoads	10	.3601E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	61	-.3601E+03	.1320E+00	.0000E+00	.8712E-01	.4753E+03	.0000E+00
LLoads	10	.0000E+00	.0000E+00	-.3601E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	61	.0000E+00	.1320E+00	.3601E+03	.0000E+00	.4753E+03	-.8712E-01
Stress	10	.0000E+00	.0000E+00	-.3601E+01	.0000E+00	.0000E+00	.0000E+00
Stress	10	.0000E+00	.0000E+00	.0000E+00			
Stress	61	.0000E+00	-.1320E-02	-.3601E+01	.0000E+00	.4753E+00	-.8712E-04
Stress	61	.4754E+00	-.4754E+00	.2377E+00			
BEAM NO. 90							
GLoads	18	-.3586E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	66	.3586E+03	.1330E+00	.0000E+00	-.8844E-01	.4769E+03	.0000E+00
LLoads	18	.0000E+00	.0000E+00	-.3586E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	66	.0000E+00	.1330E+00	.3586E+03	.0000E+00	.4769E+03	-.8844E-01
Stress	18	.0000E+00	.0000E+00	-.3586E+01	.0000E+00	.0000E+00	.0000E+00
Stress	18	.0000E+00	.0000E+00	.0000E+00			
Stress	66	.0000E+00	-.1330E-02	-.3586E+01	.0000E+00	.4769E+00	-.8844E-04
Stress	66	.4770E+00	-.4770E+00	.2385E+00			
BEAM NO. 91							
GLoads	27	.3586E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	67	-.3586E+03	.1330E+00	.0000E+00	-.8844E-01	-.4769E+03	.0000E+00
LLoads	27	.0000E+00	.0000E+00	.3586E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	67	.0000E+00	.1330E+00	-.3586E+03	.0000E+00	-.4769E+03	-.8844E-01
Stress	27	.0000E+00	.0000E+00	.3586E+01	.0000E+00	.0000E+00	.0000E+00
Stress	27	.0000E+00	.0000E+00	.0000E+00			
Stress	67	.0000E+00	-.1330E-02	.3586E+01	.0000E+00	-.4769E+00	-.8844E-04
Stress	67	.4770E+00	-.4770E+00	.2385E+00			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

TRUSS NO. 92							
GLoads	56	.0000E+00	-.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	74	.0000E+00	.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	56	.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	74	-.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	56	-.2104E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	56	-.2104E+04	-.2104E+04	.1052E+04			
Stress	74	-.2104E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	74	-.2104E+04	-.2104E+04	.1052E+04			
TRUSS NO. 93							
GLoads	55	.0000E+00	-.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	73	.0000E+00	.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	55	.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	73	-.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	55	-.2104E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	55	-.2104E+04	-.2104E+04	.1052E+04			
Stress	73	-.2104E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	73	-.2104E+04	-.2104E+04	.1052E+04			
BEAM NO. 94							
GLoads	81	.3407E+02	-.1118E+03	.1830E+02	.2134E+02	-.1107E+02	.2628E+04
GLoads	58	-.3407E+02	.1572E+03	-.1830E+02	.8115E+03	.1107E+02	-.4178E+04
LLoads	81	-.1118E+03	.1830E+02	.3407E+02	-.1107E+02	.2628E+04	.2134E+02
LLoads	58	.1572E+03	-.1830E+02	-.3407E+02	.1107E+02	-.4178E+04	.8115E+03
Stress	81	.3166E+02	.5185E+01	.9653E+01	.2213E+03	-.4216E+03	-.2043E+02
Stress	81	.4737E+03	-.4103E+03	.3241E+03			
Stress	58	.4454E+02	.5185E+01	.9653E+01	.2213E+03	-.6703E+03	.7768E+03
Stress	58	.1492E+04	-.1403E+04	.7779E+03			
BEAM NO. 95							
GLoads	82	.3388E+02	-.1108E+03	-.1835E+02	-.2334E+02	.1102E+02	.2621E+04
GLoads	64	-.3388E+02	.1562E+03	.1835E+02	-.8116E+03	-.1102E+02	-.4163E+04
LLoads	82	-.1108E+03	-.1835E+02	.3388E+02	.1102E+02	.2621E+04	-.2334E+02
LLoads	64	.1562E+03	.1835E+02	-.3388E+02	-.1102E+02	-.4163E+04	-.8116E+03
Stress	82	.3138E+02	-.5198E+01	.9599E+01	-.2204E+03	-.4205E+03	.2235E+02
Stress	82	.4742E+03	-.4114E+03	.3237E+03			
Stress	64	.4426E+02	-.5198E+01	.9599E+01	-.2204E+03	-.6678E+03	-.7769E+03
Stress	64	.1489E+04	-.1400E+04	.7764E+03			
BEAM NO. 96							
GLoads	70	.0000E+00	.2000E+00	-.1125E-10	-.2253E-09	-.1207E-10	.0000E+00

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	83	.0000E+00	-.2776E-16	.1125E-10	.1501E-10	.1207E-10	.0000E+00
LLoads	70	-.2000E+00	-.1125E-10	.0000E+00	.1207E-10	.0000E+00	.2253E-09
LLoads	83	.2776E-16	.1125E-10	.0000E+00	-.1207E-10	.0000E+00	-.1501E-10
Stress	70	.2000E-02	-.1125E-12	.0000E+00	-.1207E-13	.0000E+00	-.2253E-12
Stress	70	.2000E-02	.2000E-02	.1000E-02			
Stress	83	.2776E-18	-.1125E-12	.0000E+00	-.1207E-13	.0000E+00	-.1501E-13
Stress	83	.1501E-13	-.1501E-13	.1421E-13			
BEAM NO. 97							
GLoads	71	.0000E+00	.2000E+00	-.1753E-09	.9705E-09	.9670E-11	.0000E+00
GLoads	84	.0000E+00	-.2776E-16	.1753E-09	.7844E-10	-.9670E-11	.0000E+00
LLoads	71	-.2000E+00	-.1753E-09	.0000E+00	-.9670E-11	.0000E+00	-.9705E-09
LLoads	84	.2776E-16	.1753E-09	.0000E+00	.9670E-11	.0000E+00	-.7844E-10
Stress	71	.2000E-02	-.1753E-11	.0000E+00	.9670E-14	.0000E+00	.9705E-12
Stress	71	.2000E-02	.2000E-02	.1000E-02			
Stress	84	.2776E-18	-.1753E-11	.0000E+00	.9670E-14	.0000E+00	-.7844E-13
Stress	84	.7844E-13	-.7844E-13	.4040E-13			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

MAXIMUM STRESS SUMMARY FOR BEAMS/TRUSSES
WITHIN SPECIFIED RANGE 1- 97

Maximum (absolute) Stress = .9724E+04 at BEAM 37

Beam	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
37	-.1333E+03	.7233E+03	-.2905E-01	.5021E+00	.3098E+03	-.9281E+04
	Maximum	Minimum	Cmb. Shear			
	.9457E+04	-.9724E+04	.4862E+04			

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SOLVE SPRING LOADS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

SPRING LOADS

Type	Node	Fx	Fy	Fz	Mx	My	Mz
ASPRG NO. 1							
GLoads	10	.0000E+00	.0000E+00	.3784E+02	.0000E+00	.0000E+00	.0000E+00
GLoads	61	.0000E+00	.0000E+00	-.3784E+02	.0000E+00	.0000E+00	.0000E+00
LLoads	10	.3784E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	61	-.3784E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
ASPRG NO. 2							
GLoads	27	.0000E+00	.0000E+00	-.3787E+02	.0000E+00	.0000E+00	.0000E+00
GLoads	67	.0000E+00	.0000E+00	.3787E+02	.0000E+00	.0000E+00	.0000E+00
LLoads	27	.3787E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	67	-.3787E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
ASPRG NO. 3							
GLoads	2	.0000E+00	.0000E+00	.1386E+02	.0000E+00	.0000E+00	.0000E+00
GLoads	59	.0000E+00	.0000E+00	-.1386E+02	.0000E+00	.0000E+00	.0000E+00
LLoads	2	.1386E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	59	-.1386E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
ASPRG NO. 4							
GLoads	19	.0000E+00	.0000E+00	-.1383E+02	.0000E+00	.0000E+00	.0000E+00
GLoads	65	.0000E+00	.0000E+00	.1383E+02	.0000E+00	.0000E+00	.0000E+00
LLoads	19	.1383E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	65	-.1383E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00

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SOLVE REACTIONS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

REACTIONS

Node	Fx	Fy	Fz	Mx	My	Mz
70	.3417E+02	-.8024E+02	.1830E+02	.0000E+00	.0000E+00	.2560E+04
71	.3378E+02	-.7832E+02	-.1835E+02	.0000E+00	.0000E+00	.2553E+04
73	.0000E+00	.1673E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	.1673E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
77	-.3408E+02	.2171E+03	.1499E+02	-.9574E+03	-.1919E+03	.8958E+02
80	-.3387E+02	.2159E+03	-.1495E+02	.9514E+03	.1905E+03	.8936E+02

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Interactive Microcomputer Analysis & Graphics of Engineering Systems

IMAGES-3D Version 2.0 07/01/90

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=====
Celestial Software Inc. 125 University Ave. Berkeley, CA 94710
=====
415-843-0977
=====

FILE : TRUCKDDW

DEADWEIGHT ONLY ANALYSIS
WITH -1 FRAME IN DOWN (TRANSPORT)
POSITION
- 2 FRAME MEMBER (13) RESTRAINED
TO DRILL RIG IN F_x , F_y , F_z AND M_z
DIRECTIONS (JOINTS TO 71)

PREPARED BY L. Hyde
CHECKED BY H. H. Zide

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CHECK GEOMETRY

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

MATERIAL PROPERTIES

Material No	Modulus of Elasticity	Weight Density	Coeff of Thermal Exp.	Poisson's Ratio	Shear Web Modulus
1	3.00000E+07	2.83000E-01	6.33000E-06	3.00E-01	0.00000E+00
2	3.00000E+07	1.00000E-03	6.33000E-06	3.00E-01	0.00000E+00

SPRING CONSTANTS

Spring Const.	Stiffness
1	1.00000E+06

NODE COORDINATES

Node	X-Coord.	Y-Coord.	Z-Coord.
1	0.00000E+00	5.80000E+01	0.00000E+00
2	0.00000E+00	5.46250E+01	0.00000E+00
3	0.00000E+00	1.01000E+02	0.00000E+00
4	0.00000E+00	1.23000E+02	0.00000E+00
5	-9.50000E+00	1.01000E+02	-2.00000E+00
6	-2.28400E+01	1.01000E+02	-2.00000E+00
7	-2.65000E+01	1.01000E+02	-2.00000E+00
8	0.00000E+00	6.25000E+01	0.00000E+00
9	0.00000E+00	6.80000E+01	0.00000E+00
10	0.00000E+00	7.20000E+01	0.00000E+00
11	0.00000E+00	7.90000E+01	0.00000E+00
12	0.00000E+00	8.70000E+01	0.00000E+00
13	0.00000E+00	9.00000E+01	0.00000E+00
14	0.00000E+00	9.55000E+01	0.00000E+00
15	0.00000E+00	1.06500E+02	0.00000E+00
16	0.00000E+00	1.15000E+02	0.00000E+00
17	0.00000E+00	1.17500E+02	0.00000E+00
18	0.00000E+00	5.80000E+01	-4.60000E+01
19	0.00000E+00	5.46250E+01	-4.60000E+01
20	0.00000E+00	1.01000E+02	-4.60000E+01
21	0.00000E+00	1.23000E+02	-4.60000E+01
22	-9.50000E+00	1.01000E+02	-4.40000E+01

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Node	X-Coord.	Y-Coord.	Z-Coord.
23	-2.28400E+01	1.01000E+02	-4.40000E+01
24	-2.65000E+01	1.01000E+02	-4.40000E+01
25	0.00000E+00	6.25000E+01	-4.60000E+01
26	0.00000E+00	6.80000E+01	-4.60000E+01
27	0.00000E+00	7.20000E+01	-4.60000E+01
28	0.00000E+00	7.90000E+01	-4.60000E+01
29	0.00000E+00	8.70000E+01	-4.60000E+01
30	0.00000E+00	9.00000E+01	-4.60000E+01
31	0.00000E+00	9.55000E+01	-4.60000E+01
32	0.00000E+00	1.06500E+02	-4.60000E+01
33	0.00000E+00	1.15000E+02	-4.60000E+01
34	0.00000E+00	1.17500E+02	-4.60000E+01
35	-9.25000E+00	5.80000E+01	-1.02500E+01
36	-9.25000E+00	5.80000E+01	-3.57500E+01
37	0.00000E+00	5.80000E+01	-2.00000E+00
38	0.00000E+00	1.01000E+02	-2.00000E+00
39	-2.28400E+01	1.01000E+02	0.00000E+00
40	-9.50000E+00	9.90000E+01	-2.00000E+00
41	-9.50000E+00	1.03000E+02	-2.00000E+00
42	-2.65000E+01	1.03000E+02	-2.00000E+00
43	0.00000E+00	5.80000E+01	-4.40000E+01
44	0.00000E+00	1.01000E+02	-4.40000E+01
45	0.00000E+00	1.03000E+02	-4.40000E+01
46	-9.50000E+00	1.03000E+02	-4.40000E+01
47	-9.50000E+00	9.90000E+01	-4.40000E+01
48	-2.28400E+01	1.01000E+02	-4.60000E+01
49	-2.65000E+01	1.03000E+02	-4.40000E+01
50	0.00000E+00	1.03000E+02	-2.00000E+00
51	0.00000E+00	1.03000E+02	-1.70000E+01
52	0.00000E+00	1.03000E+02	-2.90000E+01
53	-2.65000E+01	1.03000E+02	-1.70000E+01
54	-2.65000E+01	1.03000E+02	-2.90000E+01
55	-9.50000E+00	9.90000E+01	-6.00000E+00
56	-9.50000E+00	9.90000E+01	-4.00000E+01
57	0.00000E+00	4.90000E+01	1.32000E+00
58	0.00000E+00	9.65000E+01	1.32000E+00
59	0.00000E+00	5.46250E+01	1.32000E+00
60	0.00000E+00	1.01000E+02	1.32000E+00
61	0.00000E+00	1.15000E+02	1.32000E+00
62	4.00000E+00	9.65000E+01	1.32000E+00
63	0.00000E+00	4.90000E+01	-4.73300E+01
64	0.00000E+00	9.65000E+01	-4.73300E+01

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Node	X-Coord.	Y-Coord.	Z-Coord.
65	0.00000E+00	5.46250E+01	-4.73300E+01
66	0.00000E+00	1.01000E+02	-4.73300E+01
67	0.00000E+00	1.15000E+02	-4.73300E+01
68	4.00000E+00	9.65000E+01	-4.73300E+01
69	0.00000E+00	4.90000E+01	-6.00000E+00
70	0.00000E+00	4.90000E+01	-1.20000E+01
71	0.00000E+00	4.90000E+01	-3.40000E+01
72	0.00000E+00	4.90000E+01	-4.00000E+01
73	-9.50000E+00	4.53800E+01	-6.00000E+00
74	-9.50000E+00	4.53800E+01	-4.00000E+01
75	4.00000E+00	9.65000E+01	-6.00000E+00
76	1.30000E+01	4.50000E+01	-6.00000E+00
77	1.30000E+01	4.50000E+01	-1.20000E+01
78	4.00000E+00	9.65000E+01	-4.00000E+01
79	1.30000E+01	4.50000E+01	-4.00000E+01
80	1.30000E+01	4.50000E+01	-3.40000E+01
81	0.00000E+00	5.10000E+01	1.32000E+00
82	0.00000E+00	5.10000E+01	-4.73300E+01
83	0.00000E+00	4.70000E+01	-1.20000E+01
84	0.00000E+00	4.70000E+01	-3.40000E+01
85	-2.75000E+00	4.79510E+01	-6.00000E+00
86	-2.75000E+00	4.79510E+01	-4.00000E+01
87	0.00000E+00	8.70000E+01	1.32000E+00
88	0.00000E+00	8.70000E+01	-4.73300E+01

BEAM PROPERTIES

Multiplier = 1 (For AISC database properties only)

Prop No	X-Section Area	Moment of Inertia Iy / Iz		Torsional Const.- J
1	1.590E+00	7.660E-01	7.660E-01	1.360E+00
2	2.590E+00	4.690E+00	1.540E+00	4.010E+00
3	2.580E+00	7.980E+00	2.650E+00	6.800E+00
4	1.000E+02	1.000E+03	1.000E+03	1.000E+03
5	3.530E+00	1.870E+01	1.870E+00	1.500E-01
6	4.590E+00	2.210E+01	1.170E+01	2.500E+01
7	2.090E+00	1.150E+00	2.210E+00	2.630E+00
8	7.900E-01	1.000E-02	1.000E-02	1.000E-02

Prop No	Max. Fiber Dist Cy / Cz	Shear Shape Fact SSFy / SSFz	Ctors	Shear Stress Factor SSTRFy / SSTRFz
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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Prop No	Max. Fiber Cy	Dist / Cz	Shear Shape Fact SSFy / SSFz	Ctors	Shear Stress Factor SSTRFy / SSTRFz
1	1.00E+00	1.00E+00	0.00E+00 0.00E+00	1.00E+00	1.00E+00 1.00E+00
2	2.00E+00	1.00E+00	0.00E+00 0.00E+00	2.00E+00	1.00E+00 1.00E+00
3	2.50E+00	1.25E+00	0.00E+00 0.00E+00	2.50E+00	1.00E+00 1.00E+00
4	1.00E+00	1.00E+00	0.00E+00 0.00E+00	1.00E+00	1.00E+00 1.00E+00
5	3.00E+00	1.79E+00	0.00E+00 0.00E+00	3.00E+00	1.00E+00 1.00E+00
6	3.00E+00	2.00E+00	0.00E+00 0.00E+00	3.00E+00	1.00E+00 1.00E+00
7	1.00E+00	1.50E+00	0.00E+00 0.00E+00	1.50E+00	1.00E+00 1.00E+00
8	1.00E+00	1.00E+00	0.00E+00 0.00E+00	1.00E+00	1.00E+00 1.00E+00

BEAM CONNECTIVITY

Beam No	Nodes From/ To / Ref	Prop No	Mat No	pincodes I / J	Rigid End Offset I / J	Length	Beam Type
1	2 1 0	3	1		0.00E+00 0.00E+00	0.34E+01	Beam
2	1 8 0	3	1		0.00E+00 0.00E+00	0.45E+01	Beam
3	8 9 0	3	1		0.00E+00 0.00E+00	0.55E+01	Beam
4	9 10 0	3	1		0.00E+00 0.00E+00	0.40E+01	Beam
5	10 11 0	3	1		0.00E+00 0.00E+00	0.70E+01	Beam
6	11 12 0	3	1		0.00E+00 0.00E+00	0.80E+01	Beam
7	12 13 0	3	1		0.00E+00 0.00E+00	0.30E+01	Beam
8	13 14 0	3	1		0.00E+00 0.00E+00	0.55E+01	Beam
9	14 3 0	3	1		0.00E+00 0.00E+00	0.55E+01	Beam
10	3 15 0	3	1		0.00E+00 0.00E+00	0.55E+01	Beam
11	15 16 0	3	1		0.00E+00 0.00E+00	0.85E+01	Beam
12	16 17 0	3	1		0.00E+00 0.00E+00	0.25E+01	Beam
13	17 4 0	3	1		0.00E+00 0.00E+00	0.55E+01	Beam
14	38 5 0	1	1		0.00E+00 0.00E+00	0.95E+01	Beam
15	5 6 0	1	1		0.00E+00 0.00E+00	0.13E+02	Beam
16	6 7 0	1	1		0.00E+00 0.00E+00	0.37E+01	Beam
17	4 39 0	1	1		0.35E+01 0.00E+00	0.32E+02	Beam
18	37 6 0	1	1		0.20E+01 0.20E+01	0.49E+02	Beam
19	19 18 0	3	1		0.00E+00 0.00E+00	0.34E+01	Beam
20	18 25 0	3	1		0.00E+00 0.00E+00	0.45E+01	Beam
21	25 26 0	3	1		0.00E+00 0.00E+00	0.55E+01	Beam
22	26 27 0	3	1		0.00E+00 0.00E+00	0.40E+01	Beam
23	27 28 0	3	1		0.00E+00 0.00E+00	0.70E+01	Beam
24	28 29 0	3	1		0.00E+00 0.00E+00	0.80E+01	Beam
25	29 30 0	3	1		0.00E+00 0.00E+00	0.30E+01	Beam
26	30 31 0	3	1		0.00E+00 0.00E+00	0.55E+01	Beam

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Beam No	Nodes From/ To / Ref	Prop No	Mat No	pincodes I / J	Rigid End Offset I / J	Length	Beam Type
27	31 20 0	3	1		0.00E+00 0.00E+00	0.55E+01	Beam
28	20 32 0	3	1		0.00E+00 0.00E+00	0.55E+01	Beam
29	32 33 0	3	1		0.00E+00 0.00E+00	0.85E+01	Beam
30	33 34 0	3	1		0.00E+00 0.00E+00	0.25E+01	Beam
31	34 21 0	3	1		0.00E+00 0.00E+00	0.55E+01	Beam
32	44 22 0	1	1		0.00E+00 0.00E+00	0.95E+01	Beam
33	22 23 0	1	1		0.00E+00 0.00E+00	0.13E+02	Beam
34	23 24 0	1	1		0.00E+00 0.00E+00	0.37E+01	Beam
35	21 48 0	1	1		0.35E+01 0.00E+00	0.32E+02	Beam
36	43 23 0	1	1		0.20E+01 0.20E+01	0.49E+02	Beam
37	50 51 0	1	1		0.00E+00 0.00E+00	0.15E+02	Beam
38	51 52 0	1	1		0.00E+00 0.00E+00	0.12E+02	Beam
39	52 45 0	1	1		0.00E+00 0.00E+00	0.15E+02	Beam
40	41 46 0	1	1		0.00E+00 0.00E+00	0.42E+02	Beam
41	42 53 0	1	1		0.00E+00 0.00E+00	0.15E+02	Beam
42	53 54 0	1	1		0.00E+00 0.00E+00	0.12E+02	Beam
43	54 49 0	1	1		0.00E+00 0.00E+00	0.15E+02	Beam
44	40 55 0	2	1		0.00E+00 0.00E+00	0.40E+01	Beam
45	55 56 0	2	1		0.00E+00 0.00E+00	0.34E+02	Beam
46	56 47 0	2	1		0.00E+00 0.00E+00	0.40E+01	Beam
47	37 35 0	1	1		0.00E+00 0.00E+00	0.12E+02	Beam
48	35 36 0	1	1		0.00E+00 0.00E+00	0.26E+02	Beam
49	36 43 0	1	1		0.00E+00 0.00E+00	0.12E+02	Beam
50	1 37 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
51	3 38 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
52	6 39 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
53	18 43 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
54	20 44 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
55	23 48 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
56	38 50 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
57	5 40 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
58	5 41 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
59	7 42 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
60	44 45 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
61	22 46 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
62	22 47 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
63	24 49 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
64	57 81 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
65	87 58 0	5	1		0.00E+00 0.00E+00	0.95E+01	Beam
66	58 60 0	5	1		0.00E+00 0.00E+00	0.45E+01	Beam
67	60 61 0	5	1		0.00E+00 0.00E+00	0.14E+02	Beam

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Beam No	Nodes From/ To / Ref	Prop No	Mat No	pinodes I / J	Rigid End Offset I / J	Length	Beam Type
68	63 82 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
69	88 64 0	5	1		0.00E+00 0.00E+00	0.95E+01	Beam
70	64 66 0	5	1		0.00E+00 0.00E+00	0.45E+01	Beam
71	66 67 0	5	1		0.00E+00 0.00E+00	0.14E+02	Beam
72	57 69 0	6	1		0.00E+00 0.00E+00	0.73E+01	Beam
73	69 70 0	6	1		0.00E+00 0.00E+00	0.60E+01	Beam
74	70 71 0	6	1		0.00E+00 0.00E+00	0.22E+02	Beam
75	71 72 0	6	1		0.00E+00 0.00E+00	0.60E+01	Beam
76	72 63 0	6	1		0.00E+00 0.00E+00	0.73E+01	Beam
77	62 75 0	7	1		0.00E+00 0.00E+00	0.73E+01	Beam
78	75 78 0	7	1		0.00E+00 0.00E+00	0.34E+02	Beam
79	78 68 0	7	1		0.00E+00 0.00E+00	0.73E+01	Beam
80	75 76 0	1	1		0.00E+00 0.00E+00	0.52E+02	Beam
81	76 77 75	1	1		0.00E+00 0.00E+00	0.60E+01	Beam
82	78 79 0	1	1		0.00E+00 0.00E+00	0.52E+02	Beam
83	79 80 78	1	1		0.00E+00 0.00E+00	0.60E+01	Beam
84	58 62 0	4	2		0.00E+00 0.00E+00	0.40E+01	Beam
85	64 68 0	4	2		0.00E+00 0.00E+00	0.40E+01	Beam
88	12 87 0	4	2	12456	0.00E+00 0.00E+00	0.13E+01	Beam
89	16 61 0	4	2	12456	0.00E+00 0.00E+00	0.13E+01	Beam
90	29 88 0	4	2	12456	0.00E+00 0.00E+00	0.13E+01	Beam
91	33 67 0	4	2	12456	0.00E+00 0.00E+00	0.13E+01	Beam
92	56 74 0	8	2	NA NA	NA NA	0.54E+02	Truss
93	55 73 0	8	2	NA NA	NA NA	0.54E+02	Truss
94	81 59 0	5	1		0.00E+00 0.00E+00	0.36E+01	Beam
95	82 65 0	5	1		0.00E+00 0.00E+00	0.36E+01	Beam
100	59 87 0	5	1		0.00E+00 0.00E+00	0.32E+02	Beam
101	65 88 0	5	1		0.00E+00 0.00E+00	0.32E+02	Beam

SPRING ELEMENTS

Spring No	Nodes From/ To	Direction	Stiffness No.	Spring Type
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CHECK GEOMETRY

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Spring No	Nodes From/ To		Direction	Stiffness No.	Spring Type
1	2	59	Translational	1	L BN
2	19	65	Translational	1	L BN

NODAL CONNECTIVITY

*** WARNING - Node 83 not connected to any element ***
*** WARNING - Node 84 not connected to any element ***
*** WARNING - Node 85 not connected to any element ***
*** WARNING - Node 86 not connected to any element ***

RESTRAINTS

Node No	Global/Local	Restraint Directions
70	GLOBAL	X Y Z - - RZ
71	GLOBAL	X Y Z - - RZ
73	GLOBAL	X Y Z RX RY RZ
74	GLOBAL	X Y Z RX RY RZ
77	GLOBAL	X Y Z RX RY RZ
80	GLOBAL	X Y Z RX RY RZ

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GRAVITY LOADING

Direction	Gravity Factor	Load Factor
X	.0000E+00	.1000E+01
Y	-.1000E+01	.1000E+01
Z	.0000E+00	.1000E+01

INERTIA LOADING

Direction	Translational Accel.	Rotational Accel.	Rotational Velocity	Origin
X	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Y	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Z	.0000E+00	.0000E+00	.0000E+00	.0000E+00

Gravity Acceleration = .3864E+03

REFERENCE TEMPERATURE = .0000E+00

BEAM/TRUSS GLOBAL DISTRIBUTED LOADS

BEAM	GLOBAL X-AXIS	GLOBAL Y-AXIS	GLOBAL Z-AXIS
37	.0000E+00	-.5431E+02	.0000E+00
38	.0000E+00	-.5431E+02	.0000E+00
39	.0000E+00	-.5431E+02	.0000E+00
41	.0000E+00	-.1712E+02	.0000E+00
42	.0000E+00	-.1712E+02	.0000E+00
43	.0000E+00	-.1712E+02	.0000E+00

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
1	.0000E+00	-.2975E+01	.0000E+00	-.3333E-01	.0000E+00	.0000E+00
2	.0000E+00	-.1232E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
3	.0000E+00	-.4116E+01	.0000E+00	-.3333E-01	.0000E+00	.0000E+00
4	-.5647E-15	-.8346E+01	.0000E+00	.0000E+00	.0000E+00	.3759E+02
5	.0000E+00	-.5339E+01	.0000E+00	.0000E+00	.0000E+00	.3289E+01
6	-.4044E-14	-.1398E+02	.0000E+00	.3333E-01	.0000E+00	-.5073E+02
7	.0000E+00	-.9234E+00	.0000E+00	.0000E+00	.0000E+00	-.5023E+00
8	.0000E+00	-.3651E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
9	.0000E+00	-.3468E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
10	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
11	.0000E+00	-.5476E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
12	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
13	.0000E+00	-.3103E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
14	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
15	.0000E+00	-.5111E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
16	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
17	.0000E+00	-.2921E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
18	.0000E+00	-.2975E+01	.0000E+00	.3333E-01	.0000E+00	.0000E+00
19	.0000E+00	-.1232E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
20	.0000E+00	-.4116E+01	.0000E+00	.3333E-01	.0000E+00	.0000E+00
21	-.5647E-15	-.8346E+01	.0000E+00	.0000E+00	.0000E+00	.3759E+02
22	.0000E+00	-.5339E+01	.0000E+00	.0000E+00	.0000E+00	.3289E+01
23	-.4044E-14	-.1398E+02	.0000E+00	-.3333E-01	.0000E+00	-.5073E+02
24	.0000E+00	-.9234E+00	.0000E+00	.0000E+00	.0000E+00	-.5023E+00
25	.0000E+00	-.3651E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
26	.0000E+00	-.3468E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
27	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
28	.0000E+00	-.5476E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
29	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
30	.0000E+00	-.3103E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
31	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
32	.0000E+00	-.5111E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
33	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
34	.0000E+00	-.2921E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
35	.0000E+00	-.8526E+01	.0000E+00	-.2055E+02	.0000E+00	-.4299E+01

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SOLVE DISPLACEMENTS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1

DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
36	.0000E+00	-.8526E+01	.0000E+00	.2055E+02	.0000E+00	-.4299E+01
37	-.4044E-14	-.1294E+02	.0000E+00	-.3801E+01	.0000E+00	.4886E+02
38	.0000E+00	-.2337E+01	.0000E+00	.3333E-01	.0000E+00	.3384E+01
39	-.5647E-15	-.6438E+01	.0000E+00	-.3333E-01	.0000E+00	-.2143E+02
40	.0000E+00	-.1566E+01	.0000E+00	-.9773E+00	.0000E+00	.0000E+00
41	.0000E+00	-.9549E+01	.0000E+00	-.6615E+02	.0000E+00	.0000E+00
42	.0000E+00	-.1319E+03	.0000E+00	-.3294E+03	.0000E+00	.0000E+00
43	-.4044E-14	-.1294E+02	.0000E+00	.3801E+01	.0000E+00	.4886E+02
44	.0000E+00	-.2337E+01	.0000E+00	-.3333E-01	.0000E+00	.3384E+01
45	.0000E+00	-.4108E+03	.0000E+00	.1027E+04	.0000E+00	.0000E+00
46	.0000E+00	-.9549E+01	.0000E+00	.6615E+02	.0000E+00	.0000E+00
47	.0000E+00	-.1566E+01	.0000E+00	.9773E+00	.0000E+00	.0000E+00
48	-.5647E-15	-.6438E+01	.0000E+00	.3333E-01	.0000E+00	-.2143E+02
49	.0000E+00	-.1319E+03	.0000E+00	.3294E+03	.0000E+00	.0000E+00
50	.0000E+00	-.4108E+03	.0000E+00	-.1027E+04	.0000E+00	.0000E+00
51	.0000E+00	-.7393E+03	.0000E+00	.3696E+03	.0000E+00	.0000E+00
52	.0000E+00	-.7393E+03	.0000E+00	-.3696E+03	.0000E+00	.0000E+00
53	.0000E+00	-.2372E+03	.0000E+00	.1186E+03	.0000E+00	.0000E+00
54	.0000E+00	-.2372E+03	.0000E+00	-.1186E+03	.0000E+00	.0000E+00
55	.0000E+00	-.1395E+02	.0000E+00	-.6963E+02	.0000E+00	.0000E+00
56	.0000E+00	-.1395E+02	.0000E+00	.6963E+02	.0000E+00	.0000E+00
57	.0000E+00	-.4854E+01	.0000E+00	-.5800E+01	.0000E+00	.0000E+00
58	.0000E+00	-.7193E+01	.0000E+00	.0000E+00	.0000E+00	-.1333E+00
59	.0000E+00	-.1798E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
60	.0000E+00	-.9241E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
61	.0000E+00	-.7125E+01	.0000E+00	-.8712E-01	.0000E+00	.0000E+00
62	.0000E+00	-.2365E+01	.0000E+00	-.2641E+01	.0000E+00	.1333E+00
63	.0000E+00	-.4861E+01	.0000E+00	.5816E+01	.0000E+00	.0000E+00
64	.0000E+00	-.7193E+01	.0000E+00	.0000E+00	.0000E+00	-.1333E+00
65	.0000E+00	-.1798E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
66	.0000E+00	-.9241E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
67	.0000E+00	-.7126E+01	.0000E+00	.8845E-01	.0000E+00	.0000E+00
68	.0000E+00	-.2368E+01	.0000E+00	.2648E+01	.0000E+00	.1333E+00
69	.0000E+00	-.8651E+01	.0000E+00	.1903E+01	.0000E+00	.0000E+00
70	.0000E+00	-.1819E+02	.0000E+00	-.4849E+02	.0000E+00	.0000E+00
71	.0000E+00	-.1819E+02	.0000E+00	.4849E+02	.0000E+00	.0000E+00
72	.0000E+00	-.8658E+01	.0000E+00	-.1919E+01	.0000E+00	.0000E+00
73	.0000E+00	-.2118E-01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	-.2118E-01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
75	-.8702E-15	-.2398E+02	.0000E+00	-.5434E+02	.0000E+00	-.1764E+02

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
76	-.8891E-15	-.1311E+02	.0000E+00	-.1350E+01	.2812E-16	.1764E+02
77	-.1891E-16	-.1350E+01	.0000E+00	.1350E+01	-.2812E-16	.0000E+00
78	-.8702E-15	-.2399E+02	.0000E+00	.5433E+02	.0000E+00	-.1764E+02
79	-.8891E-15	-.1311E+02	.0000E+00	.1350E+01	-.2812E-16	.1764E+02
80	-.1891E-16	-.1350E+01	.0000E+00	-.1350E+01	.2812E-16	.0000E+00
81	.0000E+00	-.1911E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
82	.0000E+00	-.1911E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
87	.0000E+00	-.2105E+02	.0000E+00	-.8712E-01	.0000E+00	.0000E+00
88	.0000E+00	-.2105E+02	.0000E+00	.8845E-01	.0000E+00	.0000E+00

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

DISPLACEMENTS

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
1	-.6849E-02	-.1388E-01	.1127E-02	/	.3873E-03	-.1269E-03	-.4198E-03
2	-.8266E-02	-.1388E-01	-.1976E-03	/	.3949E-03	-.1269E-03	-.4198E-03
3	.1213E-01	-.1385E-01	.1534E-02	/	-.8258E-03	-.1465E-03	-.5827E-03
4	.2422E-01	-.1383E-01	-.1617E-01	/	-.7969E-03	-.6312E-04	-.5689E-03
5	.1242E-01	-.4863E-02	.9815E-04	/	.1344E-03	-.5038E-04	-.9008E-03
6	.1241E-01	-.3044E-02	.1195E-02	/	-.5764E-03	.1723E-03	.2515E-04
7	.1241E-01	-.3399E-02	.1815E-02	/	-.9177E-03	.1609E-03	.1328E-03
8	-.4979E-02	-.1388E-01	.2884E-02	/	.3889E-03	-.1289E-03	-.4117E-03
9	-.2730E-02	-.1387E-01	.4937E-02	/	.3501E-03	-.1315E-03	-.4073E-03
10	-.1100E-02	-.1387E-01	.6233E-02	/	.2936E-03	-.1333E-03	-.4079E-03
11	.1780E-02	-.1387E-01	.7785E-02	/	.1377E-03	-.1365E-03	-.4168E-03
12	.5195E-02	-.1386E-01	.7881E-02	/	-.1295E-03	-.1401E-03	-.4390E-03
13	.6532E-02	-.1386E-01	.7309E-02	/	-.2542E-03	-.1415E-03	-.4541E-03
14	.9153E-02	-.1385E-01	.5207E-02	/	-.5175E-03	-.1440E-03	-.5040E-03
15	.1522E-01	-.1384E-01	-.2966E-02	/	-.8112E-03	-.1257E-03	-.5456E-03
16	.1979E-01	-.1384E-01	-.9798E-02	/	-.7984E-03	-.9345E-04	-.5403E-03
17	.2115E-01	-.1383E-01	-.1179E-01	/	-.7968E-03	-.8397E-04	-.5484E-03
18	-.6913E-02	-.1389E-01	-.1128E-02	/	-.3875E-03	.1286E-03	-.4210E-03
19	-.8333E-02	-.1389E-01	.1969E-03	/	-.3950E-03	.1286E-03	-.4210E-03
20	.1212E-01	-.1386E-01	-.1537E-02	/	.8256E-03	.1472E-03	-.5841E-03
21	.2424E-01	-.1384E-01	.1617E-01	/	.7969E-03	.6382E-04	-.5702E-03
22	.1241E-01	-.4863E-02	-.9585E-04	/	-.1344E-03	.5079E-04	-.9018E-03
23	.1241E-01	-.3027E-02	-.1188E-02	/	.5766E-03	-.1720E-03	.2390E-04
24	.1241E-01	-.3378E-02	-.1807E-02	/	.9183E-03	-.1606E-03	.1317E-03
25	-.5038E-02	-.1389E-01	-.2886E-02	/	-.3890E-03	.1305E-03	-.4129E-03
26	-.2782E-02	-.1389E-01	-.4939E-02	/	-.3501E-03	.1329E-03	-.4085E-03
27	-.1148E-02	-.1388E-01	-.6235E-02	/	-.2937E-03	.1347E-03	-.4091E-03
28	.1741E-02	-.1388E-01	-.7787E-02	/	-.1377E-03	.1377E-03	-.4181E-03
29	.5167E-02	-.1387E-01	-.7883E-02	/	.1295E-03	.1412E-03	-.4404E-03
30	.6508E-02	-.1387E-01	-.7311E-02	/	.2542E-03	.1425E-03	-.4555E-03
31	.9137E-02	-.1387E-01	-.5210E-02	/	.5175E-03	.1449E-03	-.5054E-03
32	.1522E-01	-.1386E-01	.2962E-02	/	.8111E-03	.1264E-03	-.5470E-03
33	.1980E-01	-.1385E-01	.9793E-02	/	.7983E-03	.9416E-04	-.5416E-03
34	.2117E-01	-.1385E-01	.1179E-01	/	.7967E-03	.8468E-04	-.5497E-03
35	-.5610E-02	-.6932E-02	.1661E-04	/	.1591E-03	-.9305E-04	-.4400E-03
36	-.5651E-02	-.6934E-02	.4041E-05	/	-.1593E-03	.9596E-04	-.4406E-03
37	-.6595E-02	-.1310E-01	.1127E-02	/	.3873E-03	-.1269E-03	-.4199E-03
38	.1242E-01	-.1550E-01	.1534E-02	/	-.8261E-03	-.1466E-03	-.5838E-03
39	.1276E-01	-.1891E-02	.1195E-02	/	-.5764E-03	.1723E-03	.2486E-04
40	.1062E-01	-.4861E-02	-.1710E-03	/	.1347E-03	-.5032E-04	-.9008E-03

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
41	.1422E-01	-.4863E-02	.3669E-03	/	.1343E-03	-.5037E-04	-.9008E-03
42	.1215E-01	-.3399E-02	-.2036E-04	/	-.9178E-03	.1609E-03	.1328E-03
43	-.6655E-02	-.1312E-01	-.1128E-02	/	-.3874E-03	.1286E-03	-.4211E-03
44	.1241E-01	-.1551E-01	-.1537E-02	/	.8259E-03	.1473E-03	-.5852E-03
45	.1359E-01	-.1551E-01	.1154E-03	/	.8264E-03	.1472E-03	-.5852E-03
46	.1421E-01	-.4863E-02	-.3646E-03	/	-.1343E-03	.5078E-04	-.9018E-03
47	.1061E-01	-.4861E-02	.1733E-03	/	-.1347E-03	.5073E-04	-.9018E-03
48	.1275E-01	-.1874E-02	-.1188E-02	/	.5766E-03	-.1720E-03	.2361E-04
49	.1214E-01	-.3378E-02	.2980E-04	/	.9184E-03	-.1606E-03	.1317E-03
50	.1359E-01	-.1550E-01	-.1188E-03	/	-.8265E-03	-.1465E-03	-.5838E-03
51	.1500E-01	-.3976E-01	-.3515E-04	/	-.1202E-02	-.4198E-04	-.5843E-03
52	.1500E-01	-.3977E-01	.3177E-04	/	.1201E-02	.4195E-04	-.5847E-03
53	.1059E-01	-.1747E-01	-.2446E-05	/	-.5714E-03	.4602E-04	.1324E-03
54	.1059E-01	-.1746E-01	.1189E-04	/	.5725E-03	-.4584E-04	.1321E-03
55	.1080E-01	-.3736E-02	-.1382E-03	/	.3337E-03	-.4070E-04	-.9009E-03
56	.1079E-01	-.3736E-02	.1405E-03	/	-.3337E-03	.4111E-04	-.9017E-03
57	-.1500E-03	.7663E-03	.8855E-05	/	-.5994E-04	-.1253E-04	-.9803E-04
58	.9685E-02	.8394E-03	.5642E-03	/	.1647E-03	.1381E-03	-.3383E-03
59	.4285E-03	.7715E-03	-.3032E-03	/	-.4973E-04	.1033E-03	-.1129E-03
60	.1126E-01	.8388E-03	.1305E-02	/	.1647E-03	-.4794E-03	-.3618E-03
61	.1662E-01	.8378E-03	.3611E-02	/	.1647E-03	-.2400E-02	-.3932E-03
62	.9685E-02	-.5137E-03	.1178E-04	/	.1649E-03	.1381E-03	-.3383E-03
63	-.1499E-03	.7652E-03	-.8859E-05	/	.5979E-04	.1251E-04	-.9792E-04
64	.9669E-02	.8380E-03	-.5558E-03	/	-.1644E-03	-.1373E-03	-.3377E-03
65	.4279E-03	.7704E-03	.3026E-03	/	.4966E-04	-.1038E-03	-.1128E-03
66	.1124E-01	.8374E-03	-.1295E-02	/	-.1644E-03	.4832E-03	-.3611E-03
67	.1659E-01	.8364E-03	-.3596E-02	/	-.1643E-03	.2414E-02	-.3924E-03
68	.9669E-02	-.5125E-03	-.6566E-05	/	-.1646E-03	-.1373E-03	-.3376E-03
69	-.6003E-04	.3158E-03	.3989E-05	/	-.5953E-04	-.1149E-04	-.4416E-04
70	.0000E+00	.0000E+00	.0000E+00	/	-.4346E-04	-.8151E-05	.0000E+00
71	.0000E+00	.0000E+00	.0000E+00	/	.4340E-04	.8143E-05	.0000E+00
72	-.5995E-04	.3152E-03	-.3987E-05	/	.5939E-04	.1147E-04	-.4407E-04
73	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
75	.8753E-02	.7192E-03	.1013E-04	/	.1431E-03	.1060E-03	-.3100E-03
76	.1011E-03	-.5241E-03	-.1714E-05	/	.1091E-03	.2297E-04	-.3443E-04
77	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
78	.8741E-02	.7199E-03	-.4912E-05	/	-.1429E-03	-.1052E-03	-.3095E-03
79	.1006E-03	-.5222E-03	.1711E-05	/	-.1087E-03	-.2284E-04	-.3439E-04
80	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
81	.4623E-04	.7664E-03	-.1110E-03	/	-.5991E-04	-.1253E-04	-.9817E-04

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
82	.4610E-04	.7653E-03	.1107E-03	/	.5977E-04	.1250E-04	-.9806E-04
83	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
84	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
85	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
86	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
87	.6697E-02	.8226E-03	-.5677E-03	/	.7735E-04	.1138E-02	-.2871E-03
88	.6686E-02	.8212E-03	.5727E-03	/	-.7702E-04	-.1142E-02	-.2866E-03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

BEAM LOADS AND/OR STRESSES

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

BEAM NO. 1							
GLoads	2	-.4852E-10	.3780E-10	-.1057E+03	.1394E-11	-.6262E-13	.2115E-09
GLoads	1	.4852E-10	.2464E+01	.1057E+03	-.3566E+03	.6262E-13	.1560E-10
LLoads	2	.3780E-10	-.1057E+03	-.4852E-10	-.6262E-13	.2115E-09	.1394E-11
LLoads	1	.2464E+01	.1057E+03	.4852E-10	.6262E-13	.1560E-10	-.3566E+03
Stress	2	-.1465E-10	-.4095E+02	-.1881E-10	.2302E-13	-.6627E-10	-.6578E-12
Stress	2	.5227E-10	-.8158E-10	.4079E-10			
Stress	1	.9551E+00	-.4095E+02	-.1881E-10	.2302E-13	.4888E-11	-.1682E+03
Stress	1	.1692E+03	-.1672E+03	.8458E+02			
BEAM NO. 2							
GLoads	1	.4834E+02	-.3682E+02	-.1180E+03	-.2941E+03	.3587E+02	-.5427E+03
GLoads	8	-.4834E+02	.4011E+02	.1180E+03	-.2369E+03	-.3587E+02	.3252E+03
LLoads	1	-.3682E+02	-.1180E+03	.4834E+02	.3587E+02	-.5427E+03	-.2941E+03
LLoads	8	.4011E+02	.1180E+03	-.4834E+02	-.3587E+02	.3252E+03	-.2369E+03
Stress	1	.1427E+02	-.4573E+02	.1874E+02	-.1319E+02	.1700E+03	.1387E+03
Stress	1	.3230E+03	-.2945E+03	.1620E+03			
Stress	8	.1555E+02	-.4573E+02	.1874E+02	-.1319E+02	.1019E+03	-.1118E+03
Stress	8	.2292E+03	-.1981E+03	.1153E+03			
BEAM NO. 3							
GLoads	8	.4834E+02	-.4011E+02	-.1180E+03	.2369E+03	.3587E+02	-.3252E+03
GLoads	9	-.4834E+02	.4413E+02	.1180E+03	-.8859E+03	-.3587E+02	.5934E+02
LLoads	8	-.4011E+02	-.1180E+03	.4834E+02	.3587E+02	-.3252E+03	.2369E+03
LLoads	9	.4413E+02	.1180E+03	-.4834E+02	-.3587E+02	.5934E+02	-.8859E+03
Stress	8	.1555E+02	-.4573E+02	.1874E+02	-.1319E+02	.1019E+03	-.1118E+03
Stress	8	.2292E+03	-.1981E+03	.1153E+03			
Stress	9	.1710E+02	-.4573E+02	.1874E+02	-.1319E+02	.1859E+02	-.4179E+03
Stress	9	.4536E+03	-.4193E+03	.2272E+03			
BEAM NO. 4							
GLoads	9	.4834E+02	-.4413E+02	-.1180E+03	.8859E+03	.3587E+02	-.5934E+02
GLoads	10	-.4834E+02	.4705E+02	.1180E+03	-.1358E+04	-.3587E+02	-.1340E+03
LLoads	9	-.4413E+02	-.1180E+03	.4834E+02	.3587E+02	-.5934E+02	.8859E+03
LLoads	10	.4705E+02	.1180E+03	-.4834E+02	-.3587E+02	-.1340E+03	-.1358E+04
Stress	9	.1710E+02	-.4573E+02	.1874E+02	-.1319E+02	.1859E+02	-.4179E+03
Stress	9	.4536E+03	-.4193E+03	.2272E+03			
Stress	10	.1823E+02	-.4573E+02	.1874E+02	-.1319E+02	-.4199E+02	-.6405E+03
Stress	10	.7007E+03	-.6642E+03	.3506E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

BEAM NO. 5							
GLoads	10	.4834E+02	-.4705E+02	-.1180E+03	.1358E+04	.3587E+02	.1340E+03
GLoads	11	-.4834E+02	.5216E+02	.1180E+03	-.2184E+04	-.3587E+02	-.4724E+03
LLoads	10	-.4705E+02	-.1180E+03	.4834E+02	.3587E+02	.1340E+03	.1358E+04
LLoads	11	.5216E+02	.1180E+03	-.4834E+02	-.3587E+02	-.4724E+03	-.2184E+04
Stress	10	.1823E+02	-.4573E+02	.1874E+02	-.1319E+02	-.4199E+02	-.6405E+03
Stress	10	.7007E+03	-.6642E+03	.3506E+03			
Stress	11	.2022E+02	-.4573E+02	.1874E+02	-.1319E+02	-.1480E+03	-.1030E+04
Stress	11	.1198E+04	-.1158E+04	.5993E+03			
BEAM NO. 6							
GLoads	11	.4834E+02	-.5216E+02	-.1180E+03	.2184E+04	.3587E+02	.4724E+03
GLoads	12	-.4834E+02	.5800E+02	.1180E+03	-.3128E+04	-.3587E+02	-.8591E+03
LLoads	11	-.5216E+02	-.1180E+03	.4834E+02	.3587E+02	.4724E+03	.2184E+04
LLoads	12	.5800E+02	.1180E+03	-.4834E+02	-.3587E+02	-.8591E+03	-.3128E+04
Stress	11	.2022E+02	-.4573E+02	.1874E+02	-.1319E+02	-.1480E+03	-.1030E+04
Stress	11	.1198E+04	-.1158E+04	.5993E+03			
Stress	12	.2248E+02	-.4573E+02	.1874E+02	-.1319E+02	-.2691E+03	-.1475E+04
Stress	12	.1767E+04	-.1722E+04	.8836E+03			
BEAM NO. 7							
GLoads	12	.2283E+03	-.5800E+02	-.1180E+03	.3128E+04	.3587E+02	.8591E+03
GLoads	13	-.2283E+03	.6019E+02	.1180E+03	-.3482E+04	-.3587E+02	-.1544E+04
LLoads	12	-.5800E+02	-.1180E+03	.2283E+03	.3587E+02	.8591E+03	.3128E+04
LLoads	13	.6019E+02	.1180E+03	-.2283E+03	-.3587E+02	-.1544E+04	-.3482E+04
Stress	12	.2248E+02	-.4573E+02	.8847E+02	-.1319E+02	-.2691E+03	-.1475E+04
Stress	12	.1767E+04	-.1722E+04	.8836E+03			
Stress	13	.2333E+02	-.4573E+02	.8847E+02	-.1319E+02	-.4837E+03	-.1642E+04
Stress	13	.2149E+04	-.2103E+04	.1075E+04			
BEAM NO. 8							
GLoads	13	.2283E+03	-.6019E+02	-.1180E+03	.3482E+04	.3587E+02	.1544E+04
GLoads	14	-.2283E+03	.6420E+02	.1180E+03	-.4131E+04	-.3587E+02	-.2799E+04
LLoads	13	-.6019E+02	-.1180E+03	.2283E+03	.3587E+02	.1544E+04	.3482E+04
LLoads	14	.6420E+02	.1180E+03	-.2283E+03	-.3587E+02	-.2799E+04	-.4131E+04
Stress	13	.2333E+02	-.4573E+02	.8847E+02	-.1319E+02	-.4837E+03	-.1642E+04
Stress	13	.2149E+04	-.2103E+04	.1075E+04			
Stress	14	.2489E+02	-.4573E+02	.8847E+02	-.1319E+02	-.8770E+03	-.1948E+04
Stress	14	.2850E+04	-.2800E+04	.1425E+04			
BEAM NO. 9							
GLoads	14	.2283E+03	-.6420E+02	-.1180E+03	.4131E+04	.3587E+02	.2799E+04

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

GLoads	3	-.2283E+03	.6822E+02	.1180E+03	-.4780E+04	-.3587E+02	-.4055E+04
LLoads	14	-.6420E+02	-.1180E+03	.2283E+03	.3587E+02	.2799E+04	.4131E+04
LLoads	3	.6822E+02	.1180E+03	-.2283E+03	-.3587E+02	-.4055E+04	-.4780E+04
Stress	14	.2489E+02	-.4573E+02	.8847E+02	-.1319E+02	-.8770E+03	-.1948E+04
Stress	14	.2850E+04	-.2800E+04	.1425E+04			
Stress	3	.2644E+02	-.4573E+02	.8847E+02	-.1319E+02	-.1270E+04	-.2255E+04
Stress	3	.3551E+04	-.3498E+04	.1776E+04			
BEAM NO. 10							
GLoads	3	.2091E+03	-.6717E+02	-.1286E+02	-.2456E+03	-.2975E+03	-.2189E+04
GLoads	15	-.2091E+03	.7119E+02	.1286E+02	.1748E+03	.2975E+03	.1039E+04
LLoads	3	-.6717E+02	-.1286E+02	.2091E+03	-.2975E+03	-.2189E+04	-.2456E+03
LLoads	15	.7119E+02	.1286E+02	-.2091E+03	.2975E+03	.1039E+04	.1748E+03
Stress	3	.2603E+02	-.4985E+01	.8105E+02	.1094E+03	.6857E+03	.1158E+03
Stress	3	.8276E+03	-.7755E+03	.4280E+03			
Stress	15	.2759E+02	-.4985E+01	.8105E+02	.1094E+03	.3254E+03	.8246E+02
Stress	15	.4355E+03	-.3803E+03	.2437E+03			
BEAM NO. 11							
GLoads	15	.2091E+03	-.7119E+02	-.1286E+02	-.1748E+03	-.2975E+03	-.1039E+04
GLoads	16	-.2091E+03	.7739E+02	.1286E+02	.6550E+02	.2975E+03	-.7386E+03
LLoads	15	-.7119E+02	-.1286E+02	.2091E+03	-.2975E+03	-.1039E+04	-.1748E+03
LLoads	16	.7739E+02	.1286E+02	-.2091E+03	.2975E+03	-.7386E+03	.6550E+02
Stress	15	.2759E+02	-.4985E+01	.8105E+02	.1094E+03	.3254E+03	.8246E+02
Stress	15	.4355E+03	-.3803E+03	.2437E+03			
Stress	16	.3000E+02	-.4985E+01	.8105E+02	.1094E+03	-.2314E+03	.3090E+02
Stress	16	.2923E+03	-.2323E+03	.1825E+03			
BEAM NO. 12							
GLoads	16	.2920E+02	-.7739E+02	-.1286E+02	-.6550E+02	-.2975E+03	.7386E+03
GLoads	17	-.2920E+02	.7922E+02	.1286E+02	.3335E+02	.2975E+03	-.8116E+03
LLoads	16	-.7739E+02	-.1286E+02	.2920E+02	-.2975E+03	.7386E+03	-.6550E+02
LLoads	17	.7922E+02	.1286E+02	-.2920E+02	.2975E+03	-.8116E+03	.3335E+02
Stress	16	.3000E+02	-.4985E+01	.1132E+02	.1094E+03	-.2314E+03	.3090E+02
Stress	16	.2923E+03	-.2323E+03	.1825E+03			
Stress	17	.3070E+02	-.4985E+01	.1132E+02	.1094E+03	-.2543E+03	.1573E+02
Stress	17	.3007E+03	-.2393E+03	.1859E+03			
BEAM NO. 13							
GLoads	17	.2920E+02	-.7922E+02	-.1286E+02	-.3335E+02	-.2975E+03	.8116E+03
GLoads	4	-.2920E+02	.8323E+02	.1286E+02	-.3739E+02	.2975E+03	-.9722E+03
LLoads	17	-.7922E+02	-.1286E+02	.2920E+02	-.2975E+03	.8116E+03	-.3335E+02

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	4	.8323E+02	.1286E+02	-.2920E+02	.2975E+03	-.9722E+03	-.3739E+02
Stress	17	.3070E+02	-.4985E+01	.1132E+02	.1094E+03	-.2543E+03	.1573E+02
Stress	17	.3007E+03	-.2393E+03	.1859E+03			
Stress	4	.3226E+02	-.4985E+01	.1132E+02	.1094E+03	-.3046E+03	-.1763E+02
Stress	4	.3545E+03	-.2900E+03	.2083E+03			
BEAM NO. 14							
GLoads	38	.1918E+02	-.1151E+04	.1609E+03	-.1587E+04	.5315E+03	.6243E+04
GLoads	5	-.1918E+02	.1156E+04	-.1609E+03	.1587E+04	.9968E+03	.4716E+04
LLoads	38	-.1918E+02	-.1151E+04	-.1609E+03	.1587E+04	.5315E+03	-.6243E+04
LLoads	5	.1918E+02	.1156E+04	.1609E+03	-.1587E+04	.9968E+03	-.4716E+04
Stress	38	.1207E+02	-.7242E+03	-.1012E+03	-.1167E+04	-.6939E+03	.8150E+04
Stress	38	.8856E+04	-.8832E+04	.4579E+04			
Stress	5	.1207E+02	-.7269E+03	-.1012E+03	-.1167E+04	.1301E+04	-.6157E+04
Stress	5	.7470E+04	-.7446E+04	.3913E+04			
BEAM NO. 15							
GLoads	5	.1920E+02	.4702E+03	-.3294E+02	.8361E+03	-.6034E+03	-.4718E+04
GLoads	6	-.1920E+02	-.4642E+03	.3294E+02	-.8361E+03	.1640E+03	-.1514E+04
LLoads	5	-.1920E+02	.4702E+03	.3294E+02	-.8361E+03	-.6034E+03	-.4718E+04
LLoads	6	.1920E+02	-.4642E+03	-.3294E+02	.8361E+03	.1640E+03	.1514E+04
Stress	5	.1208E+02	.2957E+03	.2072E+02	.6148E+03	.7877E+03	-.6159E+04
Stress	5	.6959E+04	-.6934E+04	.3533E+04			
Stress	6	.1208E+02	.2919E+03	.2072E+02	.6148E+03	.2141E+03	.1977E+04
Stress	6	.2203E+04	-.2179E+04	.1261E+04			
BEAM NO. 16							
GLoads	6	-.5080E-02	.3708E+03	-.5697E+02	.1463E+04	-.3249E+02	-.1354E+04
GLoads	7	.5080E-02	-.3691E+03	.5697E+02	-.1463E+04	-.1760E+03	-.4208E+00
LLoads	6	.5080E-02	.3708E+03	.5697E+02	-.1463E+04	-.3249E+02	.1354E+04
LLoads	7	-.5080E-02	-.3691E+03	-.5697E+02	.1463E+04	-.1760E+03	.4208E+00
Stress	6	-.3195E-02	.2332E+03	.3583E+02	.1076E+04	.4242E+02	-.1767E+04
Stress	6	.1810E+04	-.1810E+04	.1406E+04			
Stress	7	-.3195E-02	.2322E+03	.3583E+02	.1076E+04	-.2298E+03	.5493E+00
Stress	7	.2303E+03	-.2303E+03	.1082E+04			
BEAM NO. 17							
GLoads	4	.2920E+02	-.8323E+02	-.1286E+02	.3739E+02	-.2975E+03	.9722E+03
GLoads	39	-.2920E+02	.9591E+02	.1286E+02	.2456E+03	.3766E+01	.1700E+04
LLoads	4	.3671E+02	-.8020E+02	.1286E+02	.1795E+03	-.1947E+03	-.6883E+03
LLoads	39	-.4551E+02	.8933E+02	-.1286E+02	-.1795E+03	-.1676E+03	-.1700E+04
Stress	4	-.2309E+02	-.5044E+02	.8089E+01	-.1320E+03	.2542E+03	.8986E+03
Stress	4	.1130E+04	-.1176E+04	.6025E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	39	-.2862E+02	-.5618E+02	.8089E+01	-.1320E+03	-.2188E+03	-.2219E+04
Stress	39	.2409E+04	-.2466E+04	.1240E+04			
BEAM NO. 18							
GLoads	37	-.4841E+02	.2285E+02	-.1117E+02	.2006E+03	-.1783E+03	.6212E+03
GLoads	6	.4841E+02	-.2738E+01	.1117E+02	-.6809E+03	-.7686E+02	.1168E+04
LLoads	37	.4288E+02	-.3203E+02	.1117E+02	-.2515E+03	.1159E+03	-.5571E+03
LLoads	6	-.2513E+02	.4147E+02	-.1117E+02	.2515E+03	-.6150E+03	-.1085E+04
Stress	37	-.2697E+02	-.2015E+02	.7025E+01	.1849E+03	-.1513E+03	.7273E+03
Stress	37	.8516E+03	-.9056E+03	.4891E+03			
Stress	6	-.1580E+02	-.2608E+02	.7025E+01	.1849E+03	-.8029E+03	-.1417E+04
Stress	6	.2204E+04	-.2235E+04	.1133E+04			
BEAM NO. 19							
GLoads	19	.4372E-10	.7776E-10	.1057E+03	-.5356E-11	-.7943E-12	.2205E-09
GLoads	18	-.4372E-10	.2464E+01	-.1057E+03	.3566E+03	.7943E-12	-.5371E-10
LLoads	19	.7776E-10	.1057E+03	.4372E-10	-.7943E-12	.2205E-09	-.5356E-11
LLoads	18	.2464E+01	-.1057E+03	-.4372E-10	.7943E-12	-.5371E-10	.3566E+03
Stress	19	-.3014E-10	.4095E+02	.1695E-10	.2920E-12	-.6909E-10	.2526E-11
Stress	19	.4147E-10	-.1018E-09	.5088E-10			
Stress	18	.9551E+00	.4095E+02	.1695E-10	.2920E-12	-.1683E-10	.1682E+03
Stress	18	.1692E+03	-.1672E+03	.8458E+02			
BEAM NO. 20							
GLoads	18	.4844E+02	-.3675E+02	.1179E+03	.2929E+03	-.3402E+02	-.5422E+03
GLoads	25	-.4844E+02	.4003E+02	-.1179E+03	.2378E+03	.3402E+02	.3242E+03
LLoads	18	-.3675E+02	.1179E+03	.4844E+02	-.3402E+02	-.5422E+03	.2929E+03
LLoads	25	.4003E+02	-.1179E+03	-.4844E+02	.3402E+02	.3242E+03	.2378E+03
Stress	18	.1424E+02	.4571E+02	.1877E+02	.1251E+02	.1699E+03	-.1382E+03
Stress	18	.3223E+03	-.2938E+03	.1616E+03			
Stress	25	.1552E+02	.4571E+02	.1877E+02	.1251E+02	.1016E+03	.1122E+03
Stress	25	.2293E+03	-.1982E+03	.1153E+03			
BEAM NO. 21							
GLoads	25	.4844E+02	-.4003E+02	.1179E+03	-.2378E+03	-.3402E+02	-.3242E+03
GLoads	26	-.4844E+02	.4405E+02	-.1179E+03	.8865E+03	.3402E+02	.5782E+02
LLoads	25	-.4003E+02	.1179E+03	.4844E+02	-.3402E+02	-.3242E+03	-.2378E+03
LLoads	26	.4405E+02	-.1179E+03	-.4844E+02	.3402E+02	.5782E+02	.8865E+03
Stress	25	.1552E+02	.4571E+02	.1877E+02	.1251E+02	.1016E+03	.1122E+03
Stress	25	.2293E+03	-.1982E+03	.1153E+03			
Stress	26	.1707E+02	.4571E+02	.1877E+02	.1251E+02	.1811E+02	.4181E+03
Stress	26	.4533E+03	-.4192E+03	.2270E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 22							
GLoads	26	.4844E+02	-.4405E+02	.1179E+03	-.8865E+03	-.3402E+02	-.5782E+02
GLoads	27	-.4844E+02	.4697E+02	-.1179E+03	.1358E+04	.3402E+02	-.1359E+03
LLoads	26	-.4405E+02	.1179E+03	.4844E+02	-.3402E+02	-.5782E+02	-.8865E+03
LLoads	27	.4697E+02	-.1179E+03	-.4844E+02	.3402E+02	-.1359E+03	.1358E+04
Stress	26	.1707E+02	.4571E+02	.1877E+02	.1251E+02	.1811E+02	.4181E+03
Stress	26	.4533E+03	-.4192E+03	.2270E+03			
Stress	27	.1820E+02	.4571E+02	.1877E+02	.1251E+02	-.4259E+02	.6407E+03
Stress	27	.7015E+03	-.6650E+03	.3510E+03			
BEAM NO. 23							
GLoads	27	.4844E+02	-.4697E+02	.1179E+03	-.1358E+04	-.3402E+02	.1359E+03
GLoads	28	-.4844E+02	.5208E+02	-.1179E+03	.2184E+04	.3402E+02	-.4750E+03
LLoads	27	-.4697E+02	.1179E+03	.4844E+02	-.3402E+02	.1359E+03	-.1358E+04
LLoads	28	.5208E+02	-.1179E+03	-.4844E+02	.3402E+02	-.4750E+03	.2184E+04
Stress	27	.1820E+02	.4571E+02	.1877E+02	.1251E+02	-.4259E+02	.6407E+03
Stress	27	.7015E+03	-.6650E+03	.3510E+03			
Stress	28	.2019E+02	.4571E+02	.1877E+02	.1251E+02	-.1488E+03	.1030E+04
Stress	28	.1199E+04	-.1159E+04	.5997E+03			
BEAM NO. 24							
GLoads	28	.4844E+02	-.5208E+02	.1179E+03	-.2184E+04	-.3402E+02	.4750E+03
GLoads	29	-.4844E+02	.5792E+02	-.1179E+03	.3127E+04	.3402E+02	-.8625E+03
LLoads	28	-.5208E+02	.1179E+03	.4844E+02	-.3402E+02	.4750E+03	-.2184E+04
LLoads	29	.5792E+02	-.1179E+03	-.4844E+02	.3402E+02	-.8625E+03	.3127E+04
Stress	28	.2019E+02	.4571E+02	.1877E+02	.1251E+02	-.1488E+03	.1030E+04
Stress	28	.1199E+04	-.1159E+04	.5997E+03			
Stress	29	.2245E+02	.4571E+02	.1877E+02	.1251E+02	-.2702E+03	.1475E+04
Stress	29	.1768E+04	-.1723E+04	.8840E+03			
BEAM NO. 25							
GLoads	29	.2279E+03	-.5792E+02	.1179E+03	-.3127E+04	-.3402E+02	.8625E+03
GLoads	30	-.2279E+03	.6011E+02	-.1179E+03	.3481E+04	.3402E+02	-.1546E+04
LLoads	29	-.5792E+02	.1179E+03	.2279E+03	-.3402E+02	.8625E+03	-.3127E+04
LLoads	30	.6011E+02	-.1179E+03	-.2279E+03	.3402E+02	-.1546E+04	.3481E+04
Stress	29	.2245E+02	.4571E+02	.8832E+02	.1251E+02	-.2702E+03	.1475E+04
Stress	29	.1768E+04	-.1723E+04	.8840E+03			
Stress	30	.2330E+02	.4571E+02	.8832E+02	.1251E+02	-.4844E+03	.1642E+04
Stress	30	.2150E+04	-.2103E+04	.1075E+04			
BEAM NO. 26							
GLoads	30	.2279E+03	-.6011E+02	.1179E+03	-.3481E+04	-.3402E+02	.1546E+04

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	31	-.2279E+03	.6413E+02	-.1179E+03	.4130E+04	.3402E+02	-.2799E+04
LLoads	30	-.6011E+02	.1179E+03	.2279E+03	-.3402E+02	.1546E+04	-.3481E+04
LLoads	31	.6413E+02	-.1179E+03	-.2279E+03	.3402E+02	-.2799E+04	.4130E+04
Stress	30	.2330E+02	.4571E+02	.8832E+02	.1251E+02	-.4844E+03	.1642E+04
Stress	30	.2150E+04	-.2103E+04	.1075E+04			
Stress	31	.2485E+02	.4571E+02	.8832E+02	.1251E+02	-.8770E+03	.1948E+04
Stress	31	.2850E+04	-.2800E+04	.1425E+04			
BEAM NO. 27							
GLoads	31	.2279E+03	-.6413E+02	.1179E+03	-.4130E+04	-.3402E+02	.2799E+04
GLoads	20	-.2279E+03	.6814E+02	-.1179E+03	.4778E+04	.3402E+02	-.4053E+04
LLoads	31	-.6413E+02	.1179E+03	.2279E+03	-.3402E+02	.2799E+04	-.4130E+04
LLoads	20	.6814E+02	-.1179E+03	-.2279E+03	.3402E+02	-.4053E+04	.4778E+04
Stress	31	.2485E+02	.4571E+02	.8832E+02	.1251E+02	-.8770E+03	.1948E+04
Stress	31	.2850E+04	-.2800E+04	.1425E+04			
Stress	20	.2641E+02	.4571E+02	.8832E+02	.1251E+02	-.1270E+04	.2254E+04
Stress	20	.3550E+04	-.3497E+04	.1775E+04			
BEAM NO. 28							
GLoads	20	.2090E+03	-.6686E+02	.1284E+02	.2450E+03	.2975E+03	-.2189E+04
GLoads	32	-.2090E+03	.7088E+02	-.1284E+02	-.1744E+03	-.2975E+03	.1040E+04
LLoads	20	-.6686E+02	.1284E+02	.2090E+03	.2975E+03	-.2189E+04	.2450E+03
LLoads	32	.7088E+02	-.1284E+02	-.2090E+03	-.2975E+03	.1040E+04	-.1744E+03
Stress	20	.2592E+02	.4975E+01	.8100E+02	-.1094E+03	.6859E+03	-.1156E+03
Stress	20	.8274E+03	-.7756E+03	.4279E+03			
Stress	32	.2747E+02	.4975E+01	.8100E+02	-.1094E+03	.3258E+03	-.8228E+02
Stress	32	.4356E+03	-.3807E+03	.2437E+03			
BEAM NO. 29							
GLoads	32	.2090E+03	-.7088E+02	.1284E+02	.1744E+03	.2975E+03	-.1040E+04
GLoads	33	-.2090E+03	.7708E+02	-.1284E+02	-.6533E+02	-.2975E+03	-.7361E+03
LLoads	32	-.7088E+02	.1284E+02	.2090E+03	.2975E+03	-.1040E+04	.1744E+03
LLoads	33	.7708E+02	-.1284E+02	-.2090E+03	-.2975E+03	-.7361E+03	-.6533E+02
Stress	32	.2747E+02	.4975E+01	.8100E+02	-.1094E+03	.3258E+03	-.8228E+02
Stress	32	.4356E+03	-.3807E+03	.2437E+03			
Stress	33	.2988E+02	.4975E+01	.8100E+02	-.1094E+03	-.2306E+03	-.3082E+02
Stress	33	.2913E+03	-.2316E+03	.1822E+03			
BEAM NO. 30							
GLoads	33	.2953E+02	-.7708E+02	.1284E+02	.6533E+02	.2975E+03	.7361E+03
GLoads	34	-.2953E+02	.7891E+02	-.1284E+02	-.3325E+02	-.2975E+03	-.8100E+03
LLoads	33	-.7708E+02	.1284E+02	.2953E+02	.2975E+03	.7361E+03	.6533E+02

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	34	.7891E+02	-.1284E+02	-.2953E+02	-.2975E+03	-.8100E+03	-.3325E+02
Stress	33	.2988E+02	.4975E+01	.1145E+02	-.1094E+03	-.2306E+03	-.3082E+02
Stress	33	.2913E+03	-.2316E+03	.1822E+03			
Stress	34	.3059E+02	.4975E+01	.1145E+02	-.1094E+03	-.2537E+03	-.1568E+02
Stress	34	.3000E+03	-.2388E+03	.1857E+03			
BEAM NO. 31							
GLoads	34	.2953E+02	-.7891E+02	.1284E+02	.3325E+02	.2975E+03	.8100E+03
GLoads	21	-.2953E+02	.8293E+02	-.1284E+02	.3735E+02	-.2975E+03	-.9724E+03
LLoads	34	-.7891E+02	.1284E+02	.2953E+02	.2975E+03	.8100E+03	.3325E+02
LLoads	21	.8293E+02	-.1284E+02	-.2953E+02	-.2975E+03	-.9724E+03	.3735E+02
Stress	34	.3059E+02	.4975E+01	.1145E+02	-.1094E+03	-.2537E+03	-.1568E+02
Stress	34	.3000E+03	-.2388E+03	.1857E+03			
Stress	21	.3214E+02	.4975E+01	.1145E+02	-.1094E+03	-.3046E+03	.1762E+02
Stress	21	.3544E+03	-.2901E+03	.2082E+03			
BEAM NO. 32							
GLoads	44	.1886E+02	-.1152E+04	-.1609E+03	.1586E+04	-.5309E+03	.6243E+04
GLoads	22	-.1886E+02	.1156E+04	.1609E+03	-.1586E+04	-.9977E+03	.4718E+04
LLoads	44	-.1886E+02	-.1152E+04	.1609E+03	-.1586E+04	-.5309E+03	-.6243E+04
LLoads	22	.1886E+02	.1156E+04	-.1609E+03	.1586E+04	-.9977E+03	-.4718E+04
Stress	44	.1186E+02	-.7243E+03	.1012E+03	.1166E+04	.6931E+03	.8150E+04
Stress	44	.8855E+04	-.8831E+04	.4578E+04			
Stress	22	.1186E+02	-.7270E+03	.1012E+03	.1166E+04	-.1302E+04	-.6159E+04
Stress	22	.7473E+04	-.7450E+04	.3914E+04			
BEAM NO. 33							
GLoads	22	.1884E+02	.4700E+03	.3291E+02	-.8364E+03	.6034E+03	-.4716E+04
GLoads	23	-.1884E+02	-.4640E+03	-.3291E+02	.8364E+03	-.1644E+03	-.1514E+04
LLoads	22	-.1884E+02	.4700E+03	-.3291E+02	.8364E+03	.6034E+03	.4716E+04
LLoads	23	.1884E+02	-.4640E+03	.3291E+02	-.8364E+03	-.1644E+03	.1514E+04
Stress	22	.1185E+02	.2956E+03	-.2070E+02	-.6150E+03	-.7877E+03	-.6157E+04
Stress	22	.6957E+04	-.6933E+04	.3532E+04			
Stress	23	.1185E+02	.2918E+03	-.2070E+02	-.6150E+03	-.2146E+03	.1976E+04
Stress	23	.2202E+04	-.2179E+04	.1261E+04			
BEAM NO. 34							
GLoads	23	.5080E-02	.3708E+03	.5697E+02	-.1465E+04	.3270E+02	-.1355E+04
GLoads	24	-.5080E-02	-.3692E+03	-.5697E+02	.1465E+04	.1758E+03	.4208E+00
LLoads	23	-.5080E-02	.3708E+03	-.5697E+02	.1465E+04	.3270E+02	.1355E+04
LLoads	24	.5080E-02	-.3692E+03	.5697E+02	-.1465E+04	.1758E+03	-.4208E+00
Stress	23	.3195E-02	.2332E+03	-.3583E+02	-.1077E+04	-.4269E+02	-.1769E+04
Stress	23	.1811E+04	-.1811E+04	.1407E+04			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	24	.3195E-02	.2322E+03	-.3583E+02	-.1077E+04	.2295E+03	-.5493E+00
Stress	24	.2301E+03	-.2301E+03	.1083E+04			
BEAM NO. 35							
GLoads	21	.2953E+02	-.8293E+02	.1284E+02	-.3735E+02	.2975E+03	.9724E+03
GLoads	48	-.2953E+02	.9560E+02	-.1284E+02	-.2450E+03	-.4347E+01	.1700E+04
LLoads	21	.3626E+02	-.8021E+02	-.1284E+02	-.1795E+03	.1948E+03	-.6884E+03
LLoads	48	-.4505E+02	.8934E+02	.1284E+02	.1795E+03	.1669E+03	-.1700E+04
Stress	21	-.2280E+02	-.5045E+02	-.8073E+01	.1320E+03	-.2542E+03	.8987E+03
Stress	21	.1130E+04	-.1176E+04	.6025E+03			
Stress	48	-.2833E+02	-.5619E+02	-.8073E+01	.1320E+03	.2178E+03	-.2219E+04
Stress	48	.2409E+04	-.2465E+04	.1240E+04			
BEAM NO. 36							
GLoads	43	-.4837E+02	.2277E+02	.1122E+02	-.1996E+03	.1794E+03	.6215E+03
GLoads	23	.4837E+02	-.2656E+01	-.1122E+02	.6821E+03	.7692E+02	.1168E+04
LLoads	43	.4280E+02	-.3204E+02	-.1122E+02	.2520E+03	-.1145E+03	-.5574E+03
LLoads	23	-.2504E+02	.4147E+02	.1122E+02	-.2520E+03	.6160E+03	-.1085E+04
Stress	43	-.2692E+02	-.2015E+02	-.7058E+01	-.1853E+03	.1495E+03	.7277E+03
Stress	43	.8503E+03	-.9041E+03	.4886E+03			
Stress	23	-.1575E+02	-.2608E+02	-.7058E+01	-.1853E+03	.8042E+03	-.1417E+04
Stress	23	.2205E+04	-.2237E+04	.1134E+04			
BEAM NO. 37							
GLoads	50	-.4141E-01	.1150E+04	-.2660E+03	.7146E+04	-.1599E+03	.5342E+00
GLoads	51	.4141E-01	-.3286E+03	.2660E+03	.3943E+04	.1605E+03	-.5342E+00
LLoads	50	.2660E+03	.1150E+04	-.4141E-01	-.5342E+00	-.1599E+03	.7146E+04
LLoads	51	-.2660E+03	-.3286E+03	.4141E-01	.5342E+00	.1605E+03	.3943E+04
Stress	50	-.1673E+03	.7233E+03	-.2605E-01	.3928E+00	.2087E+03	-.9329E+04
Stress	50	.9370E+04	-.9705E+04	.4853E+04			
Stress	51	-.1673E+03	.2067E+03	-.2605E-01	.3928E+00	.2095E+03	.5148E+04
Stress	51	.5190E+04	-.5525E+04	.2762E+04			
BEAM NO. 38							
GLoads	51	-.4141E-01	.3286E+03	-.2660E+03	-.3943E+04	-.1605E+03	.5342E+00
GLoads	52	.4141E-01	.3285E+03	.2660E+03	.3944E+04	.1610E+03	-.5342E+00
LLoads	51	.2660E+03	.3286E+03	-.4141E-01	-.5342E+00	-.1605E+03	-.3943E+04
LLoads	52	-.2660E+03	.3285E+03	.4141E-01	.5342E+00	.1610E+03	.3944E+04
Stress	51	-.1673E+03	.2067E+03	-.2605E-01	.3928E+00	.2095E+03	.5148E+04
Stress	51	.5190E+04	-.5525E+04	.2762E+04			
Stress	52	-.1673E+03	-.2066E+03	-.2605E-01	.3928E+00	.2102E+03	.5149E+04
Stress	52	.5191E+04	-.5526E+04	.2763E+04			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 39							
GLoads	52	-.4141E-01	-.3285E+03	-.2660E+03	-.3944E+04	-.1610E+03	.5342E+00
GLoads	45	.4141E-01	.1150E+04	.2660E+03	-.7145E+04	.1616E+03	-.5342E+00
LLoads	52	.2660E+03	-.3285E+03	-.4141E-01	-.5342E+00	-.1610E+03	-.3944E+04
LLoads	45	-.2660E+03	.1150E+04	.4141E-01	.5342E+00	.1616E+03	-.7145E+04
Stress	52	-.1673E+03	-.2066E+03	-.2605E-01	.3928E+00	.2102E+03	.5149E+04
Stress	52	.5191E+04	-.5526E+04	.2763E+04			
Stress	45	-.1673E+03	-.7232E+03	-.2605E-01	.3928E+00	.2110E+03	-.9327E+04
Stress	45	.9371E+04	-.9705E+04	.4853E+04			
BEAM NO. 40							
GLoads	41	-.1602E-01	.9450E+01	.8308E+03	.2132E+03	-.5501E+02	.3893E+00
GLoads	46	.1602E-01	.9449E+01	-.8308E+03	-.2132E+03	.5568E+02	-.3893E+00
LLoads	41	-.8308E+03	.9450E+01	-.1602E-01	-.3893E+00	-.5501E+02	.2132E+03
LLoads	46	.8308E+03	.9449E+01	.1602E-01	.3893E+00	.5568E+02	-.2132E+03
Stress	41	.5225E+03	.5943E+01	-.1008E-01	.2863E+00	.7181E+02	-.2783E+03
Stress	41	.8726E+03	.1724E+03	.4363E+03			
Stress	46	.5225E+03	-.5943E+01	-.1008E-01	.2863E+00	.7269E+02	-.2783E+03
Stress	46	.8734E+03	.1715E+03	.4367E+03			
BEAM NO. 41							
GLoads	42	-.5081E-02	.3689E+03	-.5697E+02	.1577E+04	.1760E+03	.4106E+00
GLoads	53	.5081E-02	-.1054E+03	.5697E+02	.1980E+04	-.1759E+03	-.4106E+00
LLoads	42	.5697E+02	.3689E+03	-.5081E-02	-.4106E+00	.1760E+03	.1577E+04
LLoads	53	-.5697E+02	-.1054E+03	.5081E-02	.4106E+00	-.1759E+03	.1980E+04
Stress	42	-.3583E+02	.2320E+03	-.3195E-02	.3019E+00	-.2298E+03	-.2059E+04
Stress	42	.2253E+04	-.2325E+04	.1162E+04			
Stress	53	-.3583E+02	.6628E+02	-.3195E-02	.3019E+00	-.2297E+03	.2585E+04
Stress	53	.2779E+04	-.2850E+04	.1425E+04			
BEAM NO. 42							
GLoads	53	-.5081E-02	.1054E+03	-.5697E+02	-.1980E+04	.1759E+03	.4106E+00
GLoads	54	.5081E-02	.1055E+03	.5697E+02	.1980E+04	-.1759E+03	-.4106E+00
LLoads	53	.5697E+02	.1054E+03	-.5081E-02	-.4106E+00	.1759E+03	-.1980E+04
LLoads	54	-.5697E+02	.1055E+03	.5081E-02	.4106E+00	-.1759E+03	.1980E+04
Stress	53	-.3583E+02	.6628E+02	-.3195E-02	.3019E+00	-.2297E+03	.2585E+04
Stress	53	.2779E+04	-.2850E+04	.1425E+04			
Stress	54	-.3583E+02	-.6632E+02	-.3195E-02	.3019E+00	-.2296E+03	.2584E+04
Stress	54	.2778E+04	-.2850E+04	.1425E+04			
BEAM NO. 43							
GLoads	54	-.5081E-02	-.1055E+03	-.5697E+02	-.1980E+04	.1759E+03	.4106E+00

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	49	.5081E-02	.3690E+03	.5697E+02	-.1579E+04	-.1758E+03	-.4106E+00
LLoads	54	.5697E+02	-.1055E+03	-.5081E-02	-.4106E+00	.1759E+03	-.1980E+04
LLoads	49	-.5697E+02	.3690E+03	.5081E-02	.4106E+00	-.1758E+03	-.1579E+04
Stress	54	-.3583E+02	-.6632E+02	-.3195E-02	.3019E+00	-.2296E+03	.2584E+04
Stress	54	.2778E+04	-.2850E+04	.1425E+04			
Stress	49	-.3583E+02	-.2321E+03	-.3195E-02	.3019E+00	-.2295E+03	-.2061E+04
Stress	49	.2255E+04	-.2326E+04	.1163E+04			
BEAM NO. 44							
GLoads	40	-.3168E-02	-.1636E+04	-.6369E+03	-.5571E+04	-.3385E+03	.1148E+01
GLoads	55	.3168E-02	.1639E+04	.6369E+03	-.9775E+03	.3385E+03	-.1148E+01
LLoads	40	.6369E+03	-.1636E+04	-.3168E-02	-.1148E+01	-.3385E+03	-.5571E+04
LLoads	55	-.6369E+03	.1639E+04	.3168E-02	.1148E+01	.3385E+03	-.9775E+03
Stress	40	-.2459E+03	-.6316E+03	-.1223E-02	.5725E+00	.1443E+03	.3618E+04
Stress	40	.3516E+04	-.4008E+04	.2004E+04			
Stress	55	-.2459E+03	-.6327E+03	-.1223E-02	.5725E+00	.1443E+03	-.6347E+03
Stress	55	.5332E+03	-.1025E+04	.5125E+03			
BEAM NO. 45							
GLoads	55	-.3168E-02	.1246E+02	-.6369E+03	.9775E+03	-.3385E+03	.1148E+01
GLoads	56	.3168E-02	.1246E+02	.6369E+03	-.9775E+03	.3386E+03	-.1148E+01
LLoads	55	.6369E+03	.1246E+02	-.3168E-02	-.1148E+01	-.3385E+03	.9775E+03
LLoads	56	-.6369E+03	.1246E+02	.3168E-02	.1148E+01	.3386E+03	-.9775E+03
Stress	55	-.2459E+03	.4811E+01	-.1223E-02	.5725E+00	.1443E+03	-.6347E+03
Stress	55	.5332E+03	-.1025E+04	.5125E+03			
Stress	56	-.2459E+03	-.4811E+01	-.1223E-02	.5725E+00	.1444E+03	-.6347E+03
Stress	56	.5332E+03	-.1025E+04	.5125E+03			
BEAM NO. 46							
GLoads	56	-.3168E-02	.1639E+04	-.6369E+03	.9775E+03	-.3386E+03	.1148E+01
GLoads	47	.3168E-02	-.1636E+04	.6369E+03	.5571E+04	.3386E+03	-.1148E+01
LLoads	56	.6369E+03	.1639E+04	-.3168E-02	-.1148E+01	-.3386E+03	.9775E+03
LLoads	47	-.6369E+03	-.1636E+04	.3168E-02	.1148E+01	.3386E+03	.5571E+04
Stress	56	-.2459E+03	.6327E+03	-.1223E-02	.5725E+00	.1444E+03	-.6347E+03
Stress	56	.5332E+03	-.1025E+04	.5125E+03			
Stress	47	-.2459E+03	.6316E+03	-.1223E-02	.5725E+00	.1444E+03	.3618E+04
Stress	47	.3516E+04	-.4008E+04	.2004E+04			
BEAM NO. 47							
GLoads	37	.6569E-01	.1131E+02	.2350E+02	.3815E+03	.4571E+02	-.7846E+02
GLoads	35	-.6569E-01	-.5735E+01	-.2350E+02	-.3112E+03	.1712E+03	-.3919E+00
LLoads	37	-.1569E+02	.1131E+02	-.1750E+02	-.2325E+03	.4571E+02	.3125E+03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
<hr/>							
LLoads	35	.1569E+02	-.5735E+01	.1750E+02	.2325E+03	.1712E+03	-.2069E+03
Stress	37	.9870E+01	.7115E+01	-.1100E+02	.1710E+03	-.5968E+02	-.4080E+03
Stress	37	.4775E+03	-.4578E+03	.2937E+03			
Stress	35	.9870E+01	.3607E+01	-.1100E+02	.1710E+03	.2234E+03	-.2700E+03
Stress	35	.5034E+03	-.4836E+03	.3043E+03			
BEAM NO. 48							
GLoads	35	.6569E-01	.5735E+01	.2350E+02	.3112E+03	-.1712E+03	.3919E+00
GLoads	36	-.6569E-01	.5739E+01	-.2350E+02	-.3113E+03	.1695E+03	-.3919E+00
LLoads	35	-.2350E+02	.5735E+01	.6569E-01	-.3919E+00	-.1712E+03	.3112E+03
LLoads	36	.2350E+02	.5739E+01	-.6569E-01	.3919E+00	.1695E+03	-.3113E+03
Stress	35	.1478E+02	.3607E+01	.4131E-01	.2881E+00	.2234E+03	-.4063E+03
Stress	35	.6445E+03	-.6150E+03	.3223E+03			
Stress	36	.1478E+02	-.3609E+01	.4131E-01	.2881E+00	.2213E+03	-.4063E+03
Stress	36	.6424E+03	-.6128E+03	.3212E+03			
BEAM NO. 49							
GLoads	36	.6569E-01	-.5739E+01	.2350E+02	.3113E+03	-.1695E+03	.3919E+00
GLoads	43	-.6569E-01	.1132E+02	-.2350E+02	-.3816E+03	-.4847E+02	-.7927E+02
LLoads	36	-.1560E+02	-.5739E+01	.1758E+02	.2320E+03	-.1695E+03	.2075E+03
LLoads	43	.1560E+02	.1132E+02	-.1758E+02	-.2320E+03	-.4847E+02	-.3132E+03
Stress	36	.9809E+01	-.3609E+01	.1106E+02	-.1706E+03	.2213E+03	-.2708E+03
Stress	36	.5019E+03	-.4823E+03	.3035E+03			
Stress	43	.9809E+01	-.7117E+01	.1106E+02	-.1706E+03	-.6328E+02	-.4088E+03
Stress	43	.4819E+03	-.4623E+03	.2952E+03			
BEAM NO. 50							
GLoads	1	-.4834E+02	.3436E+02	.1233E+02	.6506E+03	-.3587E+02	.5427E+03
GLoads	37	.4834E+02	-.3416E+02	-.1233E+02	-.5821E+03	.1325E+03	-.5427E+03
LLoads	1	-.1233E+02	.3436E+02	-.4834E+02	-.5427E+03	-.3587E+02	.6506E+03
LLoads	37	.1233E+02	-.3416E+02	.4834E+02	.5427E+03	.1325E+03	-.5821E+03
Stress	1	.1233E+00	.3436E+00	-.4834E+00	.5427E+00	.3587E-01	-.6506E+00
Stress	1	.8099E+00	-.5632E+00	.6772E+00			
Stress	37	.1233E+00	.3416E+00	-.4834E+00	.5427E+00	.1325E+00	-.5821E+00
Stress	37	.8380E+00	-.5913E+00	.6857E+00			
BEAM NO. 51							
GLoads	3	.1914E+02	-.1050E+01	-.1051E+03	.5025E+04	.3334E+03	.6244E+04
GLoads	38	-.1914E+02	.1250E+01	.1051E+03	-.5027E+04	-.3717E+03	-.6244E+04
LLoads	3	.1051E+03	-.1050E+01	.1914E+02	-.6244E+04	.3334E+03	.5025E+04
LLoads	38	-.1051E+03	.1250E+01	-.1914E+02	.6244E+04	-.3717E+03	-.5027E+04
Stress	3	-.1051E+01	-.1050E-01	.1914E+00	.6244E+01	-.3334E+00	-.5025E+01
Stress	3	.4307E+01	-.6410E+01	.7018E+01			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	38	-.1051E+01	-.1250E-01	.1914E+00	.6244E+01	-.3717E+00	-.5027E+01
Stress	38	.4348E+01	-.6450E+01	.7027E+01			
BEAM NO. 52							
GLoads	6	-.2920E+02	.9611E+02	.1286E+02	.5354E+02	-.5463E+02	.1700E+04
GLoads	39	.2920E+02	-.9591E+02	-.1286E+02	-.2456E+03	-.3766E+01	-.1700E+04
LLoads	6	.1286E+02	.9611E+02	.2920E+02	.1700E+04	-.5463E+02	-.5354E+02
LLoads	39	-.1286E+02	-.9591E+02	-.2920E+02	-.1700E+04	-.3766E+01	.2456E+03
Stress	6	-.1286E+00	.9611E+00	.2920E+00	-.1700E+01	.5463E-01	.5354E-01
Stress	6	-.2044E-01	-.2368E+00	.1704E+01			
Stress	39	-.1286E+00	.9591E+00	.2920E+00	-.1700E+01	-.3766E-02	.2456E+00
Stress	39	.1207E+00	-.3779E+00	.1710E+01			
BEAM NO. 53							
GLoads	18	-.4844E+02	.3428E+02	-.1228E+02	-.6495E+03	.3402E+02	.5422E+03
GLoads	43	.4844E+02	-.3408E+02	.1228E+02	.5812E+03	-.1309E+03	-.5422E+03
LLoads	18	-.1228E+02	.3428E+02	.4844E+02	.5422E+03	.3402E+02	.6495E+03
LLoads	43	.1228E+02	-.3408E+02	-.4844E+02	-.5422E+03	-.1309E+03	-.5812E+03
Stress	18	.1228E+00	.3428E+00	.4844E+00	-.5422E+00	-.3402E-01	-.6495E+00
Stress	18	.8064E+00	-.5607E+00	.6757E+00			
Stress	43	.1228E+00	.3408E+00	.4844E+00	-.5422E+00	-.1309E+00	-.5812E+00
Stress	43	.8349E+00	-.5892E+00	.6843E+00			
BEAM NO. 54							
GLoads	20	.1890E+02	-.1279E+01	.1051E+03	-.5023E+04	-.3315E+03	.6242E+04
GLoads	44	-.1890E+02	.1479E+01	-.1051E+03	.5026E+04	.3693E+03	-.6242E+04
LLoads	20	.1051E+03	-.1279E+01	-.1890E+02	.6242E+04	-.3315E+03	.5023E+04
LLoads	44	-.1051E+03	.1479E+01	.1890E+02	-.6242E+04	.3693E+03	-.5026E+04
Stress	20	-.1051E+01	-.1279E-01	-.1890E+00	-.6242E+01	.3315E+00	-.5023E+01
Stress	20	.4304E+01	-.6406E+01	.7016E+01			
Stress	44	-.1051E+01	-.1479E-01	-.1890E+00	-.6242E+01	.3693E+00	-.5026E+01
Stress	44	.4345E+01	-.6447E+01	.7025E+01			
BEAM NO. 55							
GLoads	23	-.2953E+02	.9580E+02	-.1284E+02	-.5363E+02	.5472E+02	.1700E+04
GLoads	48	.2953E+02	-.9560E+02	.1284E+02	.2450E+03	.4347E+01	-.1700E+04
LLoads	23	.1284E+02	.9580E+02	-.2953E+02	-.1700E+04	.5472E+02	-.5363E+02
LLoads	48	-.1284E+02	-.9560E+02	.2953E+02	.1700E+04	.4347E+01	.2450E+03
Stress	23	-.1284E+00	.9580E+00	-.2953E+00	.1700E+01	-.5472E-01	.5363E-01
Stress	23	-.2001E-01	-.2367E+00	.1704E+01			
Stress	48	-.1284E+00	.9560E+00	-.2953E+00	.1700E+01	.4347E-02	.2450E+00
Stress	48	.1210E+00	-.3777E+00	.1710E+01			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 56							
GLoads	38	-.4141E-01	.1150E+04	-.2660E+03	.6614E+04	-.1599E+03	.6171E+00
GLoads	50	.4141E-01	-.1150E+04	.2660E+03	-.7146E+04	.1599E+03	-.5342E+00
LLoads	38	.1150E+04	-.2660E+03	-.4141E-01	-.1599E+03	.6171E+00	.6614E+04
LLoads	50	-.1150E+04	.2660E+03	.4141E-01	.1599E+03	-.5342E+00	-.7146E+04
Stress	38	-.1150E+02	-.2660E+01	-.4141E-03	.1599E+00	-.6171E-03	-.6614E+01
Stress	38	-.4887E+01	-.1812E+02	.9060E+01			
Stress	50	-.1150E+02	-.2660E+01	-.4141E-03	.1599E+00	-.5342E-03	-.7146E+01
Stress	50	-.4353E+01	-.1865E+02	.9325E+01			
BEAM NO. 57							
GLoads	5	-.3169E-02	-.1636E+04	-.6369E+03	-.4297E+04	-.3385E+03	.1141E+01
GLoads	40	.3169E-02	.1636E+04	.6369E+03	.5571E+04	.3385E+03	-.1148E+01
LLoads	5	.1636E+04	-.6369E+03	.3169E-02	.3385E+03	.1141E+01	.4297E+04
LLoads	40	-.1636E+04	.6369E+03	-.3169E-02	-.3385E+03	-.1148E+01	-.5571E+04
Stress	5	-.1636E+02	-.6369E+01	.3169E-04	-.3385E+00	-.1141E-02	-.4297E+01
Stress	5	-.1206E+02	-.2065E+02	.1033E+02			
Stress	40	-.1636E+02	-.6369E+01	.3169E-04	-.3385E+00	-.1148E-02	-.5571E+01
Stress	40	-.1078E+02	-.2193E+02	.1097E+02			
BEAM NO. 58							
GLoads	5	-.1602E-01	.9650E+01	.8308E+03	.1875E+04	-.5501E+02	.4214E+00
GLoads	41	.1602E-01	-.9450E+01	-.8308E+03	-.2132E+03	.5501E+02	-.3893E+00
LLoads	5	.9650E+01	.8308E+03	-.1602E-01	-.5501E+02	.4214E+00	.1875E+04
LLoads	41	-.9450E+01	-.8308E+03	.1602E-01	.5501E+02	-.3893E+00	-.2132E+03
Stress	5	-.9650E-01	.8308E+01	-.1602E-03	.5501E-01	-.4214E-03	-.1875E+01
Stress	5	.1779E+01	-.1972E+01	.9873E+00			
Stress	41	-.9450E-01	.8308E+01	-.1602E-03	.5501E-01	-.3893E-03	-.2132E+00
Stress	41	.1191E+00	-.3081E+00	.1636E+00			
BEAM NO. 59							
GLoads	7	-.5080E-02	.3691E+03	-.5697E+02	.1463E+04	.1760E+03	.4208E+00
GLoads	42	.5080E-02	-.3689E+03	.5697E+02	-.1577E+04	-.1760E+03	-.4106E+00
LLoads	7	.3691E+03	-.5697E+02	-.5080E-02	.1760E+03	.4208E+00	.1463E+04
LLoads	42	-.3689E+03	.5697E+02	.5080E-02	-.1760E+03	-.4106E+00	-.1577E+04
Stress	7	-.3691E+01	-.5697E+00	-.5080E-04	-.1760E+00	-.4208E-03	-.1463E+01
Stress	7	-.2227E+01	-.5155E+01	.2584E+01			
Stress	42	-.3689E+01	-.5697E+00	-.5080E-04	-.1760E+00	-.4106E-03	-.1577E+01
Stress	42	-.2112E+01	-.5267E+01	.2639E+01			
BEAM NO. 60							
GLoads	44	.4141E-01	.1150E+04	.2660E+03	-.6613E+04	.1616E+03	-.6171E+00

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	45	-.4141E-01	-.1150E+04	-.2660E+03	.7145E+04	-.1616E+03	.5342E+00
LLoads	44	.1150E+04	.2660E+03	.4141E-01	.1616E+03	-.6171E+00	-.6613E+04
LLoads	45	-.1150E+04	-.2660E+03	-.4141E-01	-.1616E+03	.5342E+00	.7145E+04
Stress	44	-.1150E+02	.2660E+01	.4141E-03	-.1616E+00	.6171E-03	.6613E+01
Stress	44	-.4888E+01	-.1811E+02	.9059E+01			
Stress	45	-.1150E+02	.2660E+01	.4141E-03	-.1616E+00	.5342E-03	.7145E+01
Stress	45	-.4354E+01	-.1864E+02	.9324E+01			
BEAM NO. 61							
GLoads	22	.1602E-01	.9649E+01	-.8308E+03	-.1875E+04	.5568E+02	-.4214E+00
GLoads	46	-.1602E-01	-.9449E+01	.8308E+03	.2132E+03	-.5568E+02	.3893E+00
LLoads	22	.9649E+01	-.8308E+03	.1602E-01	.5568E+02	-.4214E+00	-.1875E+04
LLoads	46	-.9449E+01	.8308E+03	-.1602E-01	-.5568E+02	.3893E+00	.2132E+03
Stress	22	-.9649E-01	-.8308E+01	.1602E-03	-.5568E-01	.4214E-03	.1875E+01
Stress	22	.1779E+01	-.1972E+01	.9874E+00			
Stress	46	-.9449E-01	-.8308E+01	.1602E-03	-.5568E-01	.3893E-03	.2132E+00
Stress	46	.1191E+00	-.3080E+00	.1638E+00			
BEAM NO. 62							
GLoads	22	.3168E-02	-.1636E+04	.6369E+03	.4297E+04	.3386E+03	-.1141E+01
GLoads	47	-.3168E-02	.1636E+04	-.6369E+03	-.5571E+04	-.3386E+03	.1148E+01
LLoads	22	.1636E+04	.6369E+03	-.3168E-02	-.3386E+03	-.1141E+01	-.4297E+04
LLoads	47	-.1636E+04	-.6369E+03	.3168E-02	.3386E+03	.1148E+01	.5571E+04
Stress	22	-.1636E+02	.6369E+01	-.3168E-04	.3386E+00	.1141E-02	.4297E+01
Stress	22	-.1206E+02	-.2065E+02	.1033E+02			
Stress	47	-.1636E+02	.6369E+01	-.3168E-04	.3386E+00	.1148E-02	.5571E+01
Stress	47	-.1078E+02	-.2193E+02	.1097E+02			
BEAM NO. 63							
GLoads	24	.5080E-02	.3692E+03	.5697E+02	-.1465E+04	-.1758E+03	-.4208E+00
GLoads	49	-.5080E-02	-.3690E+03	-.5697E+02	.1579E+04	.1758E+03	.4106E+00
LLoads	24	.3692E+03	.5697E+02	.5080E-02	-.1758E+03	-.4208E+00	-.1465E+04
LLoads	49	-.3690E+03	-.5697E+02	-.5080E-02	.1758E+03	.4106E+00	.1579E+04
Stress	24	-.3692E+01	.5697E+00	.5080E-04	.1758E+00	.4208E-03	.1465E+01
Stress	24	-.2227E+01	-.5157E+01	.2585E+01			
Stress	49	-.3690E+01	.5697E+00	.5080E-04	.1758E+00	.4106E-03	.1579E+01
Stress	49	-.2111E+01	-.5269E+01	.2640E+01			
BEAM NO. 64							
GLoads	57	.4107E+02	-.1470E+03	-.9154E+02	-.5066E+03	-.5531E+02	.2123E+04
GLoads	81	-.4107E+02	.1472E+03	.9154E+02	.3235E+03	.5531E+02	-.2205E+04
LLoads	57	-.1470E+03	-.9154E+02	.4107E+02	-.5531E+02	.2123E+04	-.5066E+03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	81	.1472E+03	.9154E+02	-.4107E+02	.5531E+02	-.2205E+04	.3235E+03
Stress	57	.1470E+01	-.9154E+00	.4107E+00	.5531E-01	-.2123E+01	.5066E+00
Stress	57	.4100E+01	-.1159E+01	.2051E+01			
Stress	81	.1472E+01	-.9154E+00	.4107E+00	.5531E-01	-.2205E+01	.3235E+00
Stress	81	.4001E+01	-.1056E+01	.2001E+01			
BEAM NO. 65							
GLoads	87	-.1388E+03	-.1833E+03	.1412E+02	-.4488E+03	.1822E+03	.3684E+04
GLoads	58	.1388E+03	.1928E+03	-.1412E+02	.5829E+03	-.1822E+03	-.2365E+04
LLoads	87	-.1833E+03	.1412E+02	-.1388E+03	.1822E+03	.3684E+04	-.4488E+03
LLoads	58	.1928E+03	-.1412E+02	.1388E+03	-.1822E+03	-.2365E+04	.5829E+03
Stress	87	.5193E+02	.3999E+01	-.3933E+02	-.3643E+04	-.5910E+03	.4296E+03
Stress	87	.1072E+04	-.9686E+03	.3683E+04			
Stress	58	.5462E+02	.3999E+01	-.3933E+02	-.3643E+04	-.3793E+03	.5580E+03
Stress	58	.9920E+03	-.8827E+03	.3677E+04			
BEAM NO. 66							
GLoads	58	-.1799E+03	.1861E+02	-.1850E-11	.8712E-01	.2375E+03	.3328E+04
GLoads	60	.1799E+03	-.1412E+02	.1850E-11	-.8712E-01	-.2375E+03	-.2519E+04
LLoads	58	.1861E+02	-.1850E-11	-.1799E+03	.2375E+03	.3328E+04	.8712E-01
LLoads	60	-.1412E+02	.1850E-11	.1799E+03	-.2375E+03	-.2519E+04	-.8712E-01
Stress	58	-.5273E+01	-.5240E-12	-.5097E+02	-.4750E+04	-.5340E+03	-.8339E-01
Stress	58	.5288E+03	-.5393E+03	.4757E+04			
Stress	60	-.3999E+01	-.5240E-12	-.5097E+02	-.4750E+04	-.4041E+03	-.8339E-01
Stress	60	.4002E+03	-.4082E+03	.4754E+04			
BEAM NO. 67							
GLoads	60	-.1799E+03	.1412E+02	.3234E-12	.8712E-01	.2375E+03	.2519E+04
GLoads	61	.1799E+03	-.1320E+00	-.3234E-12	-.8712E-01	-.2375E+03	-.1271E-09
LLoads	60	.1412E+02	.3234E-12	-.1799E+03	.2375E+03	.2519E+04	.8712E-01
LLoads	61	-.1320E+00	-.3234E-12	.1799E+03	-.2375E+03	-.1271E-09	-.8712E-01
Stress	60	-.3999E+01	.9162E-13	-.5097E+02	-.4750E+04	-.4041E+03	-.8339E-01
Stress	60	.4002E+03	-.4082E+03	.4754E+04			
Stress	61	-.3739E-01	.9162E-13	-.5097E+02	-.4750E+04	-.2040E-10	-.8339E-01
Stress	61	.4600E-01	-.1208E+00	.4750E+04			
BEAM NO. 68							
GLoads	63	.4095E+02	-.1464E+03	.9151E+02	.5053E+03	.5553E+02	.2119E+04
GLoads	82	-.4095E+02	.1466E+03	-.9151E+02	-.3223E+03	-.5553E+02	-.2201E+04
LLoads	63	-.1464E+03	.9151E+02	.4095E+02	.5553E+02	.2119E+04	.5053E+03
LLoads	82	.1466E+03	-.9151E+02	-.4095E+02	-.5553E+02	-.2201E+04	-.3223E+03
Stress	63	.1464E+01	.9151E+00	.4095E+00	-.5553E-01	-.2119E+01	-.5053E+00
Stress	63	.4088E+01	-.1161E+01	.2045E+01			

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	82	.1466E+01	.9151E+00	.4095E+00	-.5553E-01	-.2201E+01	-.3223E+00
Stress	82	.3989E+01	-.1057E+01	.1995E+01			
BEAM NO. 69							
GLoads	88	-.1385E+03	-.1827E+03	-.1415E+02	.4486E+03	-.1831E+03	.3675E+04
GLoads	64	.1385E+03	.1921E+03	.1415E+02	-.5830E+03	.1831E+03	-.2359E+04
LLoads	88	-.1827E+03	-.1415E+02	-.1385E+03	-.1831E+03	.3675E+04	.4486E+03
LLoads	64	.1921E+03	.1415E+02	.1385E+03	.1831E+03	-.2359E+04	-.5830E+03
Stress	88	.5174E+02	-.4007E+01	-.3923E+02	.3662E+04	-.5896E+03	-.4294E+03
Stress	88	.1071E+04	-.9672E+03	.3701E+04			
Stress	64	.5443E+02	-.4007E+01	-.3923E+02	.3662E+04	-.3785E+03	-.5580E+03
Stress	64	.9910E+03	-.8821E+03	.3696E+04			
BEAM NO. 70							
GLoads	64	-.1794E+03	.1861E+02	.2864E-11	-.8845E-01	-.2386E+03	.3320E+04
GLoads	66	.1794E+03	-.1412E+02	-.2864E-11	.8845E-01	.2386E+03	-.2512E+04
LLoads	64	.1861E+02	.2864E-11	-.1794E+03	-.2386E+03	.3320E+04	-.8845E-01
LLoads	66	-.1412E+02	-.2864E-11	.1794E+03	.2386E+03	-.2512E+04	.8845E-01
Stress	64	-.5273E+01	.8113E-12	-.5083E+02	.4773E+04	-.5325E+03	.8466E-01
Stress	64	.5274E+03	-.5379E+03	.4781E+04			
Stress	66	-.4000E+01	.8113E-12	-.5083E+02	.4773E+04	-.4030E+03	.8466E-01
Stress	66	.3991E+03	-.4071E+03	.4777E+04			
BEAM NO. 71							
GLoads	66	-.1794E+03	.1412E+02	-.2320E-13	-.8845E-01	-.2386E+03	.2512E+04
GLoads	67	.1794E+03	-.1330E+00	.2320E-13	.8845E-01	.2386E+03	-.1024E-09
LLoads	66	.1412E+02	-.2320E-13	-.1794E+03	-.2386E+03	.2512E+04	-.8845E-01
LLoads	67	-.1330E+00	.2320E-13	.1794E+03	.2386E+03	-.1024E-09	.8845E-01
Stress	66	-.4000E+01	-.6573E-14	-.5083E+02	.4773E+04	-.4030E+03	.8466E-01
Stress	66	.3991E+03	-.4071E+03	.4777E+04			
Stress	67	-.3768E-01	-.6573E-14	-.5083E+02	.4773E+04	-.1643E-10	.8466E-01
Stress	67	.4698E-01	-.1223E+00	.4773E+04			
BEAM NO. 72							
GLoads	57	-.4107E+02	.1470E+03	.9154E+02	.5066E+03	.5531E+02	-.2123E+04
GLoads	69	.4107E+02	-.1375E+03	-.9154E+02	.5349E+03	.2453E+03	.2123E+04
LLoads	57	-.9154E+02	.1470E+03	-.4107E+02	.2123E+04	.5531E+02	.5066E+03
LLoads	69	.9154E+02	-.1375E+03	.4107E+02	-.2123E+04	.2453E+03	.5349E+03
Stress	57	.1994E+02	.3203E+02	-.8948E+01	-.2547E+03	-.7509E+01	-.8660E+02
Stress	57	.1141E+03	-.7416E+02	.2611E+03			
Stress	69	.1994E+02	.2996E+02	-.8948E+01	-.2547E+03	.3330E+02	.9143E+02
Stress	69	.1447E+03	-.1048E+03	.2648E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

BEAM NO. 73							
GLoads	69	-.4107E+02	.1375E+03	.9154E+02	-.5349E+03	-.2453E+03	-.2123E+04
GLoads	70	.4107E+02	-.1297E+03	-.9154E+02	.1337E+04	.4917E+03	.2123E+04
LLoads	69	-.9154E+02	.1375E+03	-.4107E+02	.2123E+04	-.2453E+03	-.5349E+03
LLoads	70	.9154E+02	-.1297E+03	.4107E+02	-.2123E+04	.4917E+03	.1337E+04
Stress	69	.1994E+02	.2996E+02	-.8948E+01	-.2547E+03	.3330E+02	.9143E+02
Stress	69	.1447E+03	-.1048E+03	.2648E+03			
Stress	70	.1994E+02	.2826E+02	-.8948E+01	-.2547E+03	.6675E+02	.2285E+03
Stress	70	.3152E+03	-.2753E+03	.2996E+03			
BEAM NO. 74							
GLoads	70	.6400E-01	.1400E+02	.0000E+00	-.1337E+04	-.4917E+03	.0000E+00
GLoads	71	-.6400E-01	.1458E+02	.0000E+00	.1330E+04	.4903E+03	.0000E+00
LLoads	70	.0000E+00	.1400E+02	.6400E-01	.0000E+00	-.4917E+03	-.1337E+04
LLoads	71	.0000E+00	.1458E+02	-.6400E-01	.0000E+00	.4903E+03	.1330E+04
Stress	70	.0000E+00	.3050E+01	.1394E-01	.0000E+00	.6675E+02	.2285E+03
Stress	70	.2952E+03	-.2952E+03	.1476E+03			
Stress	71	.0000E+00	-.3176E+01	.1394E-01	.0000E+00	.6656E+02	.2274E+03
Stress	71	.2940E+03	-.2940E+03	.1470E+03			
BEAM NO. 75							
GLoads	71	.4095E+02	-.1290E+03	.9151E+02	-.1330E+04	-.4903E+03	.2119E+04
GLoads	72	-.4095E+02	.1368E+03	-.9151E+02	.5326E+03	.2446E+03	-.2119E+04
LLoads	71	-.9151E+02	-.1290E+03	.4095E+02	-.2119E+04	-.4903E+03	-.1330E+04
LLoads	72	.9151E+02	.1368E+03	-.4095E+02	.2119E+04	.2446E+03	.5326E+03
Stress	71	.1994E+02	-.2811E+02	.8922E+01	.2543E+03	.6656E+02	.2274E+03
Stress	71	.3139E+03	-.2740E+03	.2988E+03			
Stress	72	.1994E+02	-.2981E+02	.8922E+01	.2543E+03	.3321E+02	.9105E+02
Stress	72	.1442E+03	-.1043E+03	.2643E+03			
BEAM NO. 76							
GLoads	72	.4095E+02	-.1368E+03	.9151E+02	-.5326E+03	-.2446E+03	.2119E+04
GLoads	63	-.4095E+02	.1464E+03	-.9151E+02	-.5053E+03	-.5553E+02	-.2119E+04
LLoads	72	-.9151E+02	-.1368E+03	.4095E+02	-.2119E+04	-.2446E+03	-.5326E+03
LLoads	63	.9151E+02	.1464E+03	-.4095E+02	.2119E+04	-.5553E+02	-.5053E+03
Stress	72	.1994E+02	-.2981E+02	.8922E+01	.2543E+03	.3321E+02	.9105E+02
Stress	72	.1442E+03	-.1043E+03	.2643E+03			
Stress	63	.1994E+02	-.3189E+02	.8922E+01	.2543E+03	-.7538E+01	-.8637E+02
Stress	63	.1138E+03	-.7397E+02	.2606E+03			
BEAM NO. 77							
GLoads	62	.4107E+02	-.2118E+03	.1412E+02	-.5830E+03	.1154E+01	-.1173E+03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	75	-.4107E+02	.2162E+03	-.1412E+02	-.9834E+03	-.3018E+03	.1173E+03
LLoads	62	-.1412E+02	-.2118E+03	.4107E+02	.1173E+03	.1154E+01	-.5830E+03
LLoads	75	.1412E+02	.2162E+03	-.4107E+02	-.1173E+03	-.3018E+03	-.9834E+03
Stress	62	.6755E+01	-.1014E+03	.1965E+02	-.6688E+02	-.1003E+01	.3957E+03
Stress	62	.4035E+03	-.3900E+03	.2125E+03			
Stress	75	.6755E+01	-.1034E+03	.1965E+02	-.6688E+02	-.2624E+03	-.6675E+03
Stress	75	.9367E+03	-.9232E+03	.4731E+03			
BEAM NO. 78							
GLoads	75	-.7493E-02	.1012E+02	.2775E+02	.6157E+03	.2144E+03	-.3895E+00
GLoads	78	.7493E-02	.9993E+01	-.2775E+02	-.6136E+03	-.2141E+03	.3895E+00
LLoads	75	-.2775E+02	.1012E+02	-.7493E-02	.3895E+00	.2144E+03	.6157E+03
LLoads	78	.2775E+02	.9993E+01	.7493E-02	-.3895E+00	-.2141E+03	-.6136E+03
Stress	75	.1328E+02	.4841E+01	-.3585E-02	-.2221E+00	-.1864E+03	-.4179E+03
Stress	75	.6176E+03	-.5910E+03	.3088E+03			
Stress	78	.1328E+02	-.4781E+01	-.3585E-02	-.2221E+00	-.1862E+03	-.4165E+03
Stress	78	.6159E+03	-.5894E+03	.3080E+03			
BEAM NO. 79							
GLoads	78	-.4095E+02	.2155E+03	.1415E+02	.9806E+03	.3012E+03	.1163E+03
GLoads	68	.4095E+02	-.2112E+03	-.1415E+02	.5831E+03	-.1056E+01	-.1163E+03
LLoads	78	-.1415E+02	.2155E+03	-.4095E+02	-.1163E+03	.3012E+03	.9806E+03
LLoads	68	.1415E+02	-.2112E+03	.4095E+02	.1163E+03	-.1056E+01	.5831E+03
Stress	78	.6768E+01	.1031E+03	-.1959E+02	.6631E+02	-.2619E+03	-.6656E+03
Stress	78	.9343E+03	-.9208E+03	.4718E+03			
Stress	68	.6768E+01	.1010E+03	-.1959E+02	.6631E+02	-.9184E+00	.3957E+03
Stress	68	.4034E+03	-.3899E+03	.2123E+03			
BEAM NO. 80							
GLoads	75	.4108E+02	-.2263E+03	-.1363E+02	.3677E+03	.8739E+02	-.1169E+03
GLoads	76	-.4108E+02	.2498E+03	.1363E+02	.3342E+03	.3528E+02	.9006E+02
LLoads	75	.2300E+03	.1512E+01	-.1363E+02	-.2278E+02	.3773E+03	-.1169E+03
LLoads	76	-.2531E+03	.2538E+01	.1363E+02	.2278E+02	.3353E+03	.9006E+02
Stress	75	-.1446E+03	.9509E+00	-.8572E+01	.1675E+02	-.4925E+03	.1526E+03
Stress	75	.5005E+03	-.7897E+03	.3952E+03			
Stress	76	-.1592E+03	-.1596E+01	-.8572E+01	.1675E+02	.4377E+03	.1176E+03
Stress	76	.3961E+03	-.7145E+03	.3576E+03			
BEAM NO. 81							
GLoads	76	.4108E+02	-.2498E+03	-.1363E+02	-.3342E+03	-.3528E+02	-.9006E+02
GLoads	77	-.4108E+02	.2525E+03	.1363E+02	-.1173E+04	-.2112E+03	.9006E+02
LLoads	76	.1363E+02	-.2531E+03	-.2538E+01	.9006E+02	.2278E+02	-.3353E+03

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	77	-.1363E+02	.2558E+03	.3003E+01	-.9006E+02	-.6161E+01	-.1192E+04
Stress	76	-.8572E+01	-.1592E+03	-.1596E+01	-.6622E+02	-.2974E+02	.4377E+03
Stress	76	.4589E+03	-.4760E+03	.2471E+03			
Stress	77	-.8572E+01	-.1609E+03	-.1888E+01	-.6622E+02	-.8043E+01	-.1556E+04
Stress	77	.1555E+04	-.1572E+04	.7889E+03			
BEAM NO. 82							
GLoads	78	.4094E+02	-.2255E+03	.1360E+02	-.3671E+03	-.8708E+02	-.1167E+03
GLoads	79	-.4094E+02	.2490E+03	-.1360E+02	-.3334E+03	-.3533E+02	.8994E+02
LLoads	78	.2292E+03	.1514E+01	.1360E+02	.2259E+02	-.3766E+03	-.1167E+03
LLoads	79	-.2523E+03	.2536E+01	-.1360E+02	-.2259E+02	-.3345E+03	.8994E+02
Stress	78	-.1441E+03	.9521E+00	.8554E+01	-.1661E+02	.4916E+03	.1523E+03
Stress	78	.4998E+03	-.7880E+03	.3944E+03			
Stress	79	-.1587E+03	-.1595E+01	.8554E+01	-.1661E+02	-.4367E+03	.1174E+03
Stress	79	.3954E+03	-.7128E+03	.3568E+03			
BEAM NO. 83							
GLoads	79	.4094E+02	-.2490E+03	.1360E+02	.3334E+03	.3533E+02	-.8994E+02
GLoads	80	-.4094E+02	.2517E+03	-.1360E+02	.1169E+04	.2103E+03	.8994E+02
LLoads	79	.1360E+02	-.2523E+03	.2536E+01	-.8994E+02	-.2259E+02	-.3345E+03
LLoads	80	-.1360E+02	.2550E+03	-.3001E+01	.8994E+02	.5978E+01	-.1188E+04
Stress	79	-.8554E+01	-.1587E+03	.1595E+01	.6613E+02	.2949E+02	.4367E+03
Stress	79	.4576E+03	-.4747E+03	.2464E+03			
Stress	80	-.8554E+01	-.1604E+03	.1887E+01	.6613E+02	.7804E+01	-.1550E+04
Stress	80	.1550E+04	-.1567E+04	.7861E+03			
BEAM NO. 84							
GLoads	58	.4107E+02	-.2114E+03	.1412E+02	-.5830E+03	-.5531E+02	-.9638E+03
GLoads	62	-.4107E+02	.2118E+03	-.1412E+02	.5830E+03	-.1154E+01	.1173E+03
LLoads	58	.4107E+02	-.2114E+03	.1412E+02	-.5830E+03	-.5531E+02	-.9638E+03
LLoads	62	-.4107E+02	.2118E+03	-.1412E+02	.5830E+03	-.1154E+01	.1173E+03
Stress	58	-.4107E+00	-.2114E+01	.1412E+00	.5830E+00	.5531E-01	.9638E+00
Stress	58	.6084E+00	-.1430E+01	.9225E+00			
Stress	62	-.4107E+00	-.2118E+01	.1412E+00	.5830E+00	-.1154E-02	.1173E+00
Stress	62	-.2923E+00	-.5291E+00	.6402E+00			
BEAM NO. 85							
GLoads	64	.4095E+02	-.2108E+03	-.1415E+02	.5831E+03	.5553E+02	-.9601E+03
GLoads	68	-.4095E+02	.2112E+03	.1415E+02	-.5831E+03	.1056E+01	.1163E+03
LLoads	64	.4095E+02	-.2108E+03	-.1415E+02	.5831E+03	.5553E+02	-.9601E+03
LLoads	68	-.4095E+02	.2112E+03	.1415E+02	-.5831E+03	.1056E+01	.1163E+03
Stress	64	-.4095E+00	-.2108E+01	-.1415E+00	-.5831E+00	-.5553E-01	.9601E+00
Stress	64	.6061E+00	-.1425E+01	.9207E+00			

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	68	-.4095E+00	-.2112E+01	-.1415E+00	-.5831E+00	.1056E-02	.1163E+00
Stress	68	-.2922E+00	-.5268E+00	.6398E+00			
BEAM NO. 88							
GLoads	12	-.1799E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	87	.1799E+03	.1320E+00	.0000E+00	.8712E-01	-.2375E+03	.0000E+00
LLoads	12	.0000E+00	.0000E+00	.1799E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	87	.0000E+00	.1320E+00	-.1799E+03	.0000E+00	-.2375E+03	-.8712E-01
Stress	12	.0000E+00	.0000E+00	.1799E+01	.0000E+00	.0000E+00	.0000E+00
Stress	12	.0000E+00	.0000E+00	.0000E+00			
Stress	87	.0000E+00	-.1320E-02	.1799E+01	.0000E+00	-.2375E+00	-.8712E-04
Stress	87	.2376E+00	-.2376E+00	.1188E+00			
BEAM NO. 89							
GLoads	16	.1799E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	61	-.1799E+03	.1320E+00	.0000E+00	.8712E-01	.2375E+03	.0000E+00
LLoads	16	.0000E+00	.0000E+00	-.1799E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	61	.0000E+00	.1320E+00	.1799E+03	.0000E+00	.2375E+03	-.8712E-01
Stress	16	.0000E+00	.0000E+00	-.1799E+01	.0000E+00	.0000E+00	.0000E+00
Stress	16	.0000E+00	.0000E+00	.0000E+00			
Stress	61	.0000E+00	-.1320E-02	-.1799E+01	.0000E+00	.2375E+00	-.8712E-04
Stress	61	.2376E+00	-.2376E+00	.1188E+00			
BEAM NO. 90							
GLoads	29	-.1794E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	88	.1794E+03	.1330E+00	.0000E+00	-.8845E-01	.2386E+03	.0000E+00
LLoads	29	.0000E+00	.0000E+00	-.1794E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	88	.0000E+00	.1330E+00	.1794E+03	.0000E+00	.2386E+03	-.8845E-01
Stress	29	.0000E+00	.0000E+00	-.1794E+01	.0000E+00	.0000E+00	.0000E+00
Stress	29	.0000E+00	.0000E+00	.0000E+00			
Stress	88	.0000E+00	-.1330E-02	-.1794E+01	.0000E+00	.2386E+00	-.8845E-04
Stress	88	.2387E+00	-.2387E+00	.1194E+00			
BEAM NO. 91							
GLoads	33	.1794E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	67	-.1794E+03	.1330E+00	.0000E+00	-.8845E-01	-.2386E+03	.0000E+00
LLoads	33	.0000E+00	.0000E+00	.1794E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	67	.0000E+00	.1330E+00	-.1794E+03	.0000E+00	-.2386E+03	-.8845E-01
Stress	33	.0000E+00	.0000E+00	.1794E+01	.0000E+00	.0000E+00	.0000E+00
Stress	33	.0000E+00	.0000E+00	.0000E+00			
Stress	67	.0000E+00	-.1330E-02	.1794E+01	.0000E+00	-.2386E+00	-.8845E-04
Stress	67	.2387E+00	-.2387E+00	.1194E+00			

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
TRUSS NO. 92							
GLoads	56	.0000E+00	-.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	74	.0000E+00	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	56	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	74	-.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	56	-.2090E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	56	-.2090E+04	-.2090E+04	.1045E+04			
Stress	74	-.2090E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	74	-.2090E+04	-.2090E+04	.1045E+04			
TRUSS NO. 93							
GLoads	55	.0000E+00	-.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	73	.0000E+00	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	55	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	73	-.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	55	-.2090E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	55	-.2090E+04	-.2090E+04	.1045E+04			
Stress	73	-.2090E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	73	-.2090E+04	-.2090E+04	.1045E+04			
BEAM NO. 94							
GLoads	81	.4107E+02	-.1472E+03	-.9154E+02	-.3235E+03	-.5531E+02	.2205E+04
GLoads	59	-.4107E+02	.1509E+03	.9154E+02	-.8307E+01	.5531E+02	-.2354E+04
LLoads	81	-.1472E+03	-.9154E+02	.4107E+02	-.5531E+02	.2205E+04	-.3235E+03
LLoads	59	.1509E+03	.9154E+02	-.4107E+02	.5531E+02	-.2354E+04	-.8307E+01
Stress	81	.4171E+02	-.2593E+02	.1163E+02	.1106E+04	-.3538E+03	.3097E+03
Stress	81	.7051E+03	-.6217E+03	.1161E+04			
Stress	59	.4273E+02	-.2593E+02	.1163E+02	.1106E+04	-.3776E+03	-.7952E+01
Stress	59	.4283E+03	-.3429E+03	.1127E+04			
BEAM NO. 95							
GLoads	82	.4095E+02	-.1466E+03	.9151E+02	.3223E+03	.5553E+02	.2201E+04
GLoads	65	-.4095E+02	.1502E+03	-.9151E+02	.9469E+01	-.5553E+02	-.2349E+04
LLoads	82	-.1466E+03	.9151E+02	.4095E+02	.5553E+02	.2201E+04	.3223E+03
LLoads	65	.1502E+03	-.9151E+02	-.4095E+02	-.5553E+02	-.2349E+04	.9469E+01
Stress	82	.4152E+02	.2592E+02	.1160E+02	-.1111E+04	-.3531E+03	-.3085E+03
Stress	82	.7031E+03	-.6200E+03	.1165E+04			
Stress	65	.4254E+02	.2592E+02	.1160E+02	-.1111E+04	-.3769E+03	.9064E+01
Stress	65	.4285E+03	-.3434E+03	.1131E+04			
BEAM NO. 100							
GLoads	59	.4107E+02	-.1509E+03	.1412E+02	.8307E+01	-.5531E+02	.2354E+04

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	87	-.4107E+02	.1832E+03	-.1412E+02	.4487E+03	.5531E+02	-.3684E+04
LLoads	59	-.1509E+03	.1412E+02	.4107E+02	-.5531E+02	.2354E+04	.8307E+01
LLoads	87	.1832E+03	-.1412E+02	-.4107E+02	.5531E+02	-.3684E+04	.4487E+03
Stress	59	.4273E+02	.3999E+01	.1163E+02	.1106E+04	-.3776E+03	-.7952E+01
Stress	59	.4283E+03	-.3429E+03	.1127E+04			
Stress	87	.5190E+02	.3999E+01	.1163E+02	.1106E+04	-.5910E+03	.4295E+03
Stress	87	.1072E+04	-.9686E+03	.1229E+04			
BEAM NO. 101							
GLoads	65	.4095E+02	-.1502E+03	-.1415E+02	-.9469E+01	.5553E+02	.2349E+04
GLoads	88	-.4095E+02	.1825E+03	.1415E+02	-.4485E+03	-.5553E+02	-.3675E+04
LLoads	65	-.1502E+03	-.1415E+02	.4095E+02	.5553E+02	.2349E+04	-.9469E+01
LLoads	88	.1825E+03	.1415E+02	-.4095E+02	-.5553E+02	-.3675E+04	-.4485E+03
Stress	65	.4254E+02	-.4007E+01	.1160E+02	-.1111E+04	-.3769E+03	.9064E+01
Stress	65	.4285E+03	-.3434E+03	.1131E+04			
Stress	88	.5171E+02	-.4007E+01	.1160E+02	-.1111E+04	-.5896E+03	-.4293E+03
Stress	88	.1071E+04	-.9672E+03	.1233E+04			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

MAXIMUM STRESS SUMMARY FOR BEAMS/TRUSSES
WITHIN SPECIFIED RANGE 1- 101

Maximum (absolute) Stress = .9705E+04 at BEAM 39

Beam	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
39	-.1673E+03	-.7232E+03	-.2605E-01	.3928E+00	.2110E+03	-.9327E+04
	Maximum	Minimum	Cmb. Shear			
	.9371E+04	-.9705E+04	.4853E+04			

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SOLVE SPRING LOADS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

SPRING LOADS

Type	Node	Fx	Fy	Fz	Mx	My	Mz
ASPRG NO. 1							
GLoads	2	.0000E+00	.0000E+00	.1057E+03	.0000E+00	.0000E+00	.0000E+00
GLoads	59	.0000E+00	.0000E+00	-.1057E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	2	.1057E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	59	-.1057E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
ASPRG NO. 2							
GLoads	19	.0000E+00	.0000E+00	-.1057E+03	.0000E+00	.0000E+00	.0000E+00
GLoads	65	.0000E+00	.0000E+00	.1057E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	19	.1057E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	65	-.1057E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00

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SOLVE REACTIONS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

REACTIONS

Node	Fx	Fy	Fz	Mx	My	Mz
70	.4113E+02	-.1157E+03	-.9154E+02	.0000E+00	.0000E+00	.2123E+04
71	.4089E+02	-.1145E+03	.9151E+02	.0000E+00	.0000E+00	.2119E+04
73	.0000E+00	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
77	-.4108E+02	.2525E+03	.1363E+02	-.1173E+04	-.2112E+03	.9006E+02
80	-.4094E+02	.2517E+03	-.1360E+02	.1169E+04	.2103E+03	.8994E+02

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Interactive Microcomputer Analysis & Graphics of Engineering Systems

IMAGES-3D Version 2.0 07/01/90

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=====

Celestial Software Inc.
125 University Ave.
Berkeley, CA
94710

415-843-0977

=====

FILE: TRUCKUDW

DEADWEIGHT ONLY ANALYSIS WITH
-1 FRAME IN UP (OPERATING) POSITION

-2 FRAME MEMBER (13) RESTRAINED
TO DRILL LH IN F_x , F_y & F_z DIRECTIONS
(JTS. 70 & 71)

PREPARED BY L. Hyde

CHECKED BY H.H. Zink

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CHECK GEOMETRY

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

MATERIAL PROPERTIES

Material No	Modulus of Elasticity	Weight Density	Coeff of Thermal Exp.	Poisson's Ratio	Shear Web Modulus
1	3.00000E+07	2.83000E-01	6.33000E-06	3.00E-01	0.00000E+00
2	3.00000E+07	1.00000E-03	6.33000E-06	3.00E-01	0.00000E+00

SPRING CONSTANTS

Spring Const.	Stiffness
1	1.00000E+06

NODE COORDINATES

Node	X-Coord.	Y-Coord.	Z-Coord.
1	0.00000E+00	1.01000E+02	0.00000E+00
2	0.00000E+00	9.76250E+01	0.00000E+00
3	0.00000E+00	1.44000E+02	0.00000E+00
4	0.00000E+00	1.66000E+02	0.00000E+00
5	-9.50000E+00	1.44000E+02	-2.00000E+00
6	-2.28400E+01	1.44000E+02	-2.00000E+00
7	-2.65000E+01	1.44000E+02	-2.00000E+00
8	0.00000E+00	1.05500E+02	0.00000E+00
9	0.00000E+00	1.11000E+02	0.00000E+00
10	0.00000E+00	1.15000E+02	0.00000E+00
11	0.00000E+00	1.22000E+02	0.00000E+00
12	0.00000E+00	1.27500E+02	0.00000E+00
13	0.00000E+00	1.33000E+02	0.00000E+00
14	0.00000E+00	1.38500E+02	0.00000E+00
15	0.00000E+00	1.49500E+02	0.00000E+00
16	0.00000E+00	1.55000E+02	0.00000E+00
17	0.00000E+00	1.60500E+02	0.00000E+00
18	0.00000E+00	1.01000E+02	-4.60000E+01
19	0.00000E+00	9.76250E+01	-4.60000E+01
20	0.00000E+00	1.44000E+02	-4.60000E+01
21	0.00000E+00	1.66000E+02	-4.60000E+01
22	-9.50000E+00	1.44000E+02	-4.40000E+01

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Node	X-Coord.	Y-Coord.	Z-Coord.
23	-2.28400E+01	1.44000E+02	-4.40000E+01
24	-2.65000E+01	1.44000E+02	-4.40000E+01
25	0.00000E+00	1.05500E+02	-4.60000E+01
26	0.00000E+00	1.11000E+02	-4.60000E+01
27	0.00000E+00	1.15000E+02	-4.60000E+01
28	0.00000E+00	1.22000E+02	-4.60000E+01
29	0.00000E+00	1.27500E+02	-4.60000E+01
30	0.00000E+00	1.33000E+02	-4.60000E+01
31	0.00000E+00	1.38500E+02	-4.60000E+01
32	0.00000E+00	1.49500E+02	-4.60000E+01
33	0.00000E+00	1.55000E+02	-4.60000E+01
34	0.00000E+00	1.60500E+02	-4.60000E+01
35	-9.25000E+00	1.01000E+02	-1.02500E+01
36	-9.25000E+00	1.01000E+02	-3.57500E+01
37	0.00000E+00	1.01000E+02	-2.00000E+00
38	0.00000E+00	1.44000E+02	-2.00000E+00
39	-2.28400E+01	1.44000E+02	0.00000E+00
40	-9.50000E+00	1.42000E+02	-2.00000E+00
41	-9.50000E+00	1.46000E+02	-2.00000E+00
42	-2.65000E+01	1.46000E+02	-2.00000E+00
43	0.00000E+00	1.01000E+02	-4.40000E+01
44	0.00000E+00	1.44000E+02	-4.40000E+01
45	0.00000E+00	1.46000E+02	-4.40000E+01
46	-9.50000E+00	1.46000E+02	-4.40000E+01
47	-9.50000E+00	1.42000E+02	-4.40000E+01
48	-2.28400E+01	1.44000E+02	-4.60000E+01
49	-2.65000E+01	1.46000E+02	-4.40000E+01
50	0.00000E+00	1.46000E+02	-2.00000E+00
51	0.00000E+00	1.46000E+02	-1.70000E+01
52	0.00000E+00	1.46000E+02	-2.90000E+01
53	-2.65000E+01	1.46000E+02	-1.70000E+01
54	-2.65000E+01	1.46000E+02	-2.90000E+01
55	-9.50000E+00	1.42000E+02	-6.00000E+00
56	-9.50000E+00	1.42000E+02	-4.00000E+01
57	0.00000E+00	4.90000E+01	1.32000E+00
58	0.00000E+00	9.65000E+01	1.32000E+00
59	0.00000E+00	9.76250E+01	1.32000E+00
60	0.00000E+00	1.01000E+02	1.32000E+00
61	0.00000E+00	1.15000E+02	1.32000E+00
62	4.00000E+00	9.65000E+01	1.32000E+00
63	0.00000E+00	4.90000E+01	-4.73300E+01
64	0.00000E+00	9.65000E+01	-4.73300E+01

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Node	X-Coord.	Y-Coord.	Z-Coord.
65	0.00000E+00	9.76250E+01	-4.73300E+01
66	0.00000E+00	1.01000E+02	-4.73300E+01
67	0.00000E+00	1.15000E+02	-4.73300E+01
68	4.00000E+00	9.65000E+01	-4.73300E+01
69	0.00000E+00	4.90000E+01	-6.00000E+00
70	0.00000E+00	4.90000E+01	-1.20000E+01
71	0.00000E+00	4.90000E+01	-3.40000E+01
72	0.00000E+00	4.90000E+01	-4.00000E+01
73	-9.50000E+00	4.53800E+01	-6.00000E+00
74	-9.50000E+00	4.53800E+01	-4.00000E+01
75	4.00000E+00	9.65000E+01	-6.00000E+00
76	1.30000E+01	4.50000E+01	-6.00000E+00
77	1.30000E+01	4.50000E+01	-1.20000E+01
78	4.00000E+00	9.65000E+01	-4.00000E+01
79	1.30000E+01	4.50000E+01	-4.00000E+01
80	1.30000E+01	4.50000E+01	-3.40000E+01
81	0.00000E+00	5.10000E+01	1.32000E+00
82	0.00000E+00	5.10000E+01	-4.73300E+01
83	0.00000E+00	4.70000E+01	-1.20000E+01
84	0.00000E+00	4.70000E+01	-3.40000E+01
85	-2.75000E+00	4.79510E+01	-6.00000E+00
86	-2.75000E+00	4.79510E+01	-4.00000E+01

BEAM PROPERTIES

Multiplier = 1 (For AISC database properties only)

Prop No	X-Section Area	Moment of Inertia Iy / Iz		Torsional Const.- J
1	1.590E+00	7.660E-01	7.660E-01	1.360E+00
2	2.590E+00	4.690E+00	1.540E+00	4.010E+00
3	2.580E+00	7.980E+00	2.650E+00	6.800E+00
4	1.000E+02	1.000E+03	1.000E+03	1.000E+03
5	3.530E+00	1.870E+01	1.870E+00	1.500E-01
6	4.590E+00	2.210E+01	1.170E+01	2.500E+01
7	2.090E+00	1.150E+00	2.210E+00	2.630E+00
8	7.900E-01	1.000E-02	1.000E-02	1.000E-02

Prop No	Max. Fiber Dist Cy / Cz	Shear Shape Fact SSFy / SSFz	Ctors	Shear Stress Factor SSTRFy / SSTRFz
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CHECK GEOMETRY

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Prop No	Max. Cy	Fiber /	Dist Cz	Shear SSFy	Shape /	Fact SSFz	Ctors	Shear Stress Factor SSTRFy / SSTRFz
1	1.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00
2	2.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E+00	1.00E+00	1.00E+00
3	2.50E+00	1.25E+00	0.00E+00	0.00E+00	0.00E+00	2.50E+00	1.00E+00	1.00E+00
4	1.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00
5	3.00E+00	1.79E+00	0.00E+00	0.00E+00	0.00E+00	3.00E+00	1.00E+00	1.00E+00
6	3.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E+00	1.00E+00	1.00E+00
7	1.00E+00	1.50E+00	0.00E+00	0.00E+00	0.00E+00	1.50E+00	1.00E+00	1.00E+00
8	1.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00

BEAM CONNECTIVITY

Beam No	Nodes			Prop No	Mat No	pincodes		Rigid I	End /	Offset J	Length	Beam Type
	From/	To /	Ref			I	J					
1	2	1	0	3	1			0.00E+00	0.00E+00	0.34E+01	Beam	
2	1	8	0	3	1			0.00E+00	0.00E+00	0.45E+01	Beam	
3	8	9	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
4	9	10	0	3	1			0.00E+00	0.00E+00	0.40E+01	Beam	
5	10	11	0	3	1			0.00E+00	0.00E+00	0.70E+01	Beam	
6	11	12	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
7	12	13	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
8	13	14	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
9	14	3	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
10	3	15	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
11	15	16	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
12	16	17	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
13	17	4	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
14	38	5	0	1	1			0.00E+00	0.00E+00	0.95E+01	Beam	
15	5	6	0	1	1			0.00E+00	0.00E+00	0.13E+02	Beam	
16	6	7	0	1	1			0.00E+00	0.00E+00	0.37E+01	Beam	
17	4	39	0	1	1			0.35E+01	0.00E+00	0.32E+02	Beam	
18	37	6	0	1	1			0.20E+01	0.20E+01	0.49E+02	Beam	
19	19	18	0	3	1			0.00E+00	0.00E+00	0.34E+01	Beam	
20	18	25	0	3	1			0.00E+00	0.00E+00	0.45E+01	Beam	
21	25	26	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
22	26	27	0	3	1			0.00E+00	0.00E+00	0.40E+01	Beam	
23	27	28	0	3	1			0.00E+00	0.00E+00	0.70E+01	Beam	
24	28	29	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
25	29	30	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	
26	30	31	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam	

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Beam No	Nodes From/ To / Ref			Prop No	Mat No	pincodes I / J		Rigid I	End /	Offset J	Length	Beam Type
27	31	20	0	3	1			0.00E+00	0.00E+00	0.55E+01		Beam
28	20	32	0	3	1			0.00E+00	0.00E+00	0.55E+01		Beam
29	32	33	0	3	1			0.00E+00	0.00E+00	0.55E+01		Beam
30	33	34	0	3	1			0.00E+00	0.00E+00	0.55E+01		Beam
31	34	21	0	3	1			0.00E+00	0.00E+00	0.55E+01		Beam
32	44	22	0	1	1			0.00E+00	0.00E+00	0.95E+01		Beam
33	22	23	0	1	1			0.00E+00	0.00E+00	0.13E+02		Beam
34	23	24	0	1	1			0.00E+00	0.00E+00	0.37E+01		Beam
35	21	48	0	1	1			0.35E+01	0.00E+00	0.32E+02		Beam
36	43	23	0	1	1			0.20E+01	0.20E+01	0.49E+02		Beam
37	50	51	0	1	1			0.00E+00	0.00E+00	0.15E+02		Beam
38	51	52	0	1	1			0.00E+00	0.00E+00	0.12E+02		Beam
39	52	45	0	1	1			0.00E+00	0.00E+00	0.15E+02		Beam
40	41	46	0	1	1			0.00E+00	0.00E+00	0.42E+02		Beam
41	42	53	0	1	1			0.00E+00	0.00E+00	0.15E+02		Beam
42	53	54	0	1	1			0.00E+00	0.00E+00	0.12E+02		Beam
43	54	49	0	1	1			0.00E+00	0.00E+00	0.15E+02		Beam
44	40	55	0	2	1			0.00E+00	0.00E+00	0.40E+01		Beam
45	55	56	0	2	1			0.00E+00	0.00E+00	0.34E+02		Beam
46	56	47	0	2	1			0.00E+00	0.00E+00	0.40E+01		Beam
47	37	35	0	1	1			0.00E+00	0.00E+00	0.12E+02		Beam
48	35	36	0	1	1			0.00E+00	0.00E+00	0.26E+02		Beam
49	36	43	0	1	1			0.00E+00	0.00E+00	0.12E+02		Beam
50	1	37	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
51	3	38	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
52	6	39	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
53	18	43	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
54	20	44	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
55	23	48	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
56	38	50	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
57	5	40	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
58	5	41	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
59	7	42	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
60	44	45	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
61	22	46	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
62	22	47	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
63	24	49	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
64	57	81	0	4	2			0.00E+00	0.00E+00	0.20E+01		Beam
65	58	59	0	5	1			0.00E+00	0.00E+00	0.11E+01		Beam
66	59	60	0	5	1			0.00E+00	0.00E+00	0.34E+01		Beam
67	60	61	0	5	1			0.00E+00	0.00E+00	0.14E+02		Beam

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CHECK GEOMETRY

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Beam No	Nodes From/ To / Ref	Prop No	Mat No	pincodes I / J	Rigid End Offset I / J	Length	Beam Type
68	63 82 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
69	64 65 0	5	1		0.00E+00 0.00E+00	0.11E+01	Beam
70	65 66 0	5	1		0.00E+00 0.00E+00	0.34E+01	Beam
71	66 67 0	5	1		0.00E+00 0.00E+00	0.14E+02	Beam
72	57 69 0	6	1		0.00E+00 0.00E+00	0.73E+01	Beam
73	69 70 0	6	1		0.00E+00 0.00E+00	0.60E+01	Beam
74	70 71 0	6	1		0.00E+00 0.00E+00	0.22E+02	Beam
75	71 72 0	6	1		0.00E+00 0.00E+00	0.60E+01	Beam
76	72 63 0	6	1		0.00E+00 0.00E+00	0.73E+01	Beam
77	62 75 0	7	1		0.00E+00 0.00E+00	0.73E+01	Beam
78	75 78 0	7	1		0.00E+00 0.00E+00	0.34E+02	Beam
79	78 68 0	7	1		0.00E+00 0.00E+00	0.73E+01	Beam
80	75 76 0	1	1		0.00E+00 0.00E+00	0.52E+02	Beam
81	76 77 75	1	1		0.00E+00 0.00E+00	0.60E+01	Beam
82	78 79 0	1	1		0.00E+00 0.00E+00	0.52E+02	Beam
83	79 80 78	1	1		0.00E+00 0.00E+00	0.60E+01	Beam
84	58 62 0	4	2		0.00E+00 0.00E+00	0.40E+01	Beam
85	64 68 0	4	2		0.00E+00 0.00E+00	0.40E+01	Beam
88	1 60 0	4	2	12456	0.00E+00 0.00E+00	0.13E+01	Beam
89	10 61 0	4	2	12456	0.00E+00 0.00E+00	0.13E+01	Beam
90	18 66 0	4	2	12456	0.00E+00 0.00E+00	0.13E+01	Beam
91	27 67 0	4	2	12456	0.00E+00 0.00E+00	0.13E+01	Beam
92	56 74 0	8	1	NA NA	NA NA	0.97E+02	Truss
93	55 73 0	8	1	NA NA	NA NA	0.97E+02	Truss
94	81 58 0	5	1		0.00E+00 0.00E+00	0.46E+02	Beam
95	82 64 0	5	1		0.00E+00 0.00E+00	0.46E+02	Beam
96	70 83 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam
97	71 84 0	4	2		0.00E+00 0.00E+00	0.20E+01	Beam

SPRING ELEMENTS

Spring No	Nodes From/ To	Direction	Stiffness No.	Spring Type
-----	-----	-----	-----	-----

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CHECK GEOMETRY

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Spring No	Nodes From/ To		Direction	Stiffness No.	Spring Type
1	10	61	Translational	1	L BN
2	27	67	Translational	1	L BN
3	2	59	Translational	1	L BN
4	19	65	Translational	1	L BN

NODAL CONNECTIVITY

*** WARNING - Node 85 not connected to any element ***
*** WARNING - Node 86 not connected to any element ***

RESTRAINTS

Node No	Global/Local	Restraint Directions
70	GLOBAL	X Y Z - - -
71	GLOBAL	X Y Z - - -
73	GLOBAL	X Y Z RX RY RZ
74	GLOBAL	X Y Z RX RY RZ
77	GLOBAL	X Y Z RX RY RZ
80	GLOBAL	X Y Z RX RY RZ

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GRAVITY LOADING

Direction	Gravity Factor	Load Factor
X	.0000E+00	.1000E+01
Y	-.1000E+01	.1000E+01
Z	.0000E+00	.1000E+01

INERTIA LOADING

Direction	Translational Accel.	Rotational Accel.	Rotational Velocity	Origin
X	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Y	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Z	.0000E+00	.0000E+00	.0000E+00	.0000E+00

Gravity Acceleration = .3864E+03

REFERENCE TEMPERATURE = .0000E+00

BEAM/TRUSS GLOBAL DISTRIBUTED LOADS

BEAM	GLOBAL X-AXIS	GLOBAL Y-AXIS	GLOBAL Z-AXIS
37	.0000E+00	-.5431E+02	.0000E+00
38	.0000E+00	-.5431E+02	.0000E+00
39	.0000E+00	-.5431E+02	.0000E+00
41	.0000E+00	-.1712E+02	.0000E+00
42	.0000E+00	-.1712E+02	.0000E+00
43	.0000E+00	-.1712E+02	.0000E+00

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

L O A D C A S E 1
DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
1	.0000E+00	-.2975E+01	.0000E+00	-.3333E-01	.0000E+00	.0000E+00
2	.0000E+00	-.1232E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
3	.0000E+00	-.4116E+01	.0000E+00	-.3333E-01	.0000E+00	.0000E+00
4	-.5647E-15	-.8346E+01	.0000E+00	.0000E+00	.0000E+00	.3759E+02
5	.0000E+00	-.5339E+01	.0000E+00	.0000E+00	.0000E+00	.3289E+01
6	-.4044E-14	-.1398E+02	.0000E+00	.3333E-01	.0000E+00	-.5073E+02
7	.0000E+00	-.9234E+00	.0000E+00	.0000E+00	.0000E+00	-.5023E+00
8	.0000E+00	-.3651E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
9	.0000E+00	-.3468E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
10	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
11	.0000E+00	-.4563E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
12	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
13	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
14	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
15	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
16	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
17	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
18	.0000E+00	-.2975E+01	.0000E+00	.3333E-01	.0000E+00	.0000E+00
19	.0000E+00	-.1232E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
20	.0000E+00	-.4116E+01	.0000E+00	.3333E-01	.0000E+00	.0000E+00
21	-.5647E-15	-.8346E+01	.0000E+00	.0000E+00	.0000E+00	.3759E+02
22	.0000E+00	-.5339E+01	.0000E+00	.0000E+00	.0000E+00	.3289E+01
23	-.4044E-14	-.1398E+02	.0000E+00	-.3333E-01	.0000E+00	-.5073E+02
24	.0000E+00	-.9234E+00	.0000E+00	.0000E+00	.0000E+00	-.5023E+00
25	.0000E+00	-.3651E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
26	.0000E+00	-.3468E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
27	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
28	.0000E+00	-.4563E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
29	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
30	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
31	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
32	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
33	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
34	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
35	.0000E+00	-.8526E+01	.0000E+00	-.2055E+02	.0000E+00	-.4299E+01

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
36	.0000E+00	-.8526E+01	.0000E+00	.2055E+02	.0000E+00	-.4299E+01
37	-.4044E-14	-.1294E+02	.0000E+00	-.3801E+01	.0000E+00	.4886E+02
38	.0000E+00	-.2337E+01	.0000E+00	.3333E-01	.0000E+00	.3384E+01
39	-.5647E-15	-.6438E+01	.0000E+00	-.3333E-01	.0000E+00	-.2143E+02
40	.0000E+00	-.1566E+01	.0000E+00	-.9773E+00	.0000E+00	.0000E+00
41	.0000E+00	-.9549E+01	.0000E+00	-.6615E+02	.0000E+00	.0000E+00
42	.0000E+00	-.1319E+03	.0000E+00	-.3294E+03	.0000E+00	.0000E+00
43	-.4044E-14	-.1294E+02	.0000E+00	.3801E+01	.0000E+00	.4886E+02
44	.0000E+00	-.2337E+01	.0000E+00	-.3333E-01	.0000E+00	.3384E+01
45	.0000E+00	-.4108E+03	.0000E+00	.1027E+04	.0000E+00	.0000E+00
46	.0000E+00	-.9549E+01	.0000E+00	.6615E+02	.0000E+00	.0000E+00
47	.0000E+00	-.1566E+01	.0000E+00	.9773E+00	.0000E+00	.0000E+00
48	-.5647E-15	-.6438E+01	.0000E+00	.3333E-01	.0000E+00	-.2143E+02
49	.0000E+00	-.1319E+03	.0000E+00	.3294E+03	.0000E+00	.0000E+00
50	.0000E+00	-.4108E+03	.0000E+00	-.1027E+04	.0000E+00	.0000E+00
51	.0000E+00	-.7393E+03	.0000E+00	.3696E+03	.0000E+00	.0000E+00
52	.0000E+00	-.7393E+03	.0000E+00	-.3696E+03	.0000E+00	.0000E+00
53	.0000E+00	-.2372E+03	.0000E+00	.1186E+03	.0000E+00	.0000E+00
54	.0000E+00	-.2372E+03	.0000E+00	-.1186E+03	.0000E+00	.0000E+00
55	.0000E+00	-.2473E+02	.0000E+00	-.6963E+02	.0000E+00	.0000E+00
56	.0000E+00	-.2473E+02	.0000E+00	.6963E+02	.0000E+00	.0000E+00
57	.0000E+00	-.4854E+01	.0000E+00	-.5800E+01	.0000E+00	.0000E+00
58	.0000E+00	-.2349E+02	.0000E+00	.0000E+00	.0000E+00	-.1333E+00
59	.0000E+00	-.2248E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
60	.0000E+00	-.8811E+01	.0000E+00	-.8712E-01	.0000E+00	.0000E+00
61	.0000E+00	-.7125E+01	.0000E+00	-.8712E-01	.0000E+00	.0000E+00
62	.0000E+00	-.2365E+01	.0000E+00	-.2641E+01	.0000E+00	.1333E+00
63	.0000E+00	-.4861E+01	.0000E+00	.5816E+01	.0000E+00	.0000E+00
64	.0000E+00	-.2349E+02	.0000E+00	.0000E+00	.0000E+00	-.1333E+00
65	.0000E+00	-.2248E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
66	.0000E+00	-.8812E+01	.0000E+00	.8845E-01	.0000E+00	.0000E+00
67	.0000E+00	-.7126E+01	.0000E+00	.8845E-01	.0000E+00	.0000E+00
68	.0000E+00	-.2368E+01	.0000E+00	.2648E+01	.0000E+00	.1333E+00
69	.0000E+00	-.8651E+01	.0000E+00	.1903E+01	.0000E+00	.0000E+00
70	.0000E+00	-.1829E+02	.0000E+00	-.4849E+02	.0000E+00	.0000E+00
71	.0000E+00	-.1829E+02	.0000E+00	.4849E+02	.0000E+00	.0000E+00
72	.0000E+00	-.8658E+01	.0000E+00	-.1919E+01	.0000E+00	.0000E+00
73	.0000E+00	-.1080E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	-.1080E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
75	-.8702E-15	-.2398E+02	.0000E+00	-.5434E+02	.0000E+00	-.1764E+02

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
76	-.8891E-15	-.1311E+02	.0000E+00	-.1350E+01	.2812E-16	.1764E+02
77	-.1891E-16	-.1350E+01	.0000E+00	.1350E+01	-.2812E-16	.0000E+00
78	-.8702E-15	-.2399E+02	.0000E+00	.5433E+02	.0000E+00	-.1764E+02
79	-.8891E-15	-.1311E+02	.0000E+00	.1350E+01	-.2812E-16	.1764E+02
80	-.1891E-16	-.1350E+01	.0000E+00	-.1350E+01	.2812E-16	.0000E+00
81	.0000E+00	-.2283E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
82	.0000E+00	-.2283E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
83	.0000E+00	-.1000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
84	.0000E+00	-.1000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

DISPLACEMENTS

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
1	.2547E-01	-.2438E-01	.3067E-02	/	.3788E-03	-.2834E-03	-.1021E-02
2	.2202E-01	-.2438E-01	.1785E-02	/	.3803E-03	-.2834E-03	-.1021E-02
3	.7741E-01	-.2446E-01	.1707E-02	/	-.8887E-03	-.2296E-03	-.1457E-02
4	.1075E+00	-.2449E-01	-.1747E-01	/	-.8679E-03	-.1263E-03	-.1344E-02
5	.7792E-01	-.7870E-02	.8405E-04	/	.1255E-03	-.4905E-04	-.1671E-02
6	.7799E-01	.4157E-02	.1240E-02	/	-.6715E-03	.2066E-03	-.7681E-03
7	.7799E-01	.6705E-02	.1966E-02	/	-.9991E-03	.1861E-03	-.6604E-03
8	.3005E-01	-.2439E-01	.4764E-02	/	.3705E-03	-.2778E-03	-.1017E-02
9	.3571E-01	-.2440E-01	.6686E-02	/	.3216E-03	-.2709E-03	-.1050E-02
10	.4000E-01	-.2441E-01	.7856E-02	/	.2594E-03	-.2659E-03	-.1099E-02
11	.4805E-01	-.2442E-01	.9138E-02	/	.9500E-04	-.2571E-03	-.1198E-02
12	.5484E-01	-.2443E-01	.9188E-02	/	-.8450E-04	-.2503E-03	-.1271E-02
13	.6202E-01	-.2444E-01	.8128E-02	/	-.3083E-03	-.2434E-03	-.1338E-02
14	.6955E-01	-.2445E-01	.5715E-02	/	-.5763E-03	-.2365E-03	-.1400E-02
15	.8523E-01	-.2447E-01	-.3144E-02	/	-.8761E-03	-.2038E-03	-.1389E-02
16	.9274E-01	-.2448E-01	-.7940E-02	/	-.8685E-03	-.1780E-03	-.1348E-02
17	.1001E+00	-.2448E-01	-.1271E-01	/	-.8658E-03	-.1522E-03	-.1333E-02
18	.2544E-01	-.2440E-01	-.3050E-02	/	-.3783E-03	.2832E-03	-.1024E-02
19	.2198E-01	-.2440E-01	-.1770E-02	/	-.3798E-03	.2832E-03	-.1024E-02
20	.7747E-01	-.2448E-01	-.1674E-02	/	.8886E-03	.2275E-03	-.1459E-02
21	.1076E+00	-.2451E-01	.1750E-01	/	.8679E-03	.1242E-03	-.1346E-02
22	.7797E-01	-.7870E-02	-.7276E-04	/	-.1254E-03	.4664E-04	-.1673E-02
23	.7804E-01	.4184E-02	-.1260E-02	/	.6718E-03	-.2090E-03	-.7700E-03
24	.7804E-01	.6739E-02	-.1995E-02	/	.9999E-03	-.1885E-03	-.6621E-03
25	.3002E-01	-.2441E-01	-.4744E-02	/	-.3700E-03	.2774E-03	-.1020E-02
26	.3571E-01	-.2442E-01	-.6664E-02	/	-.3211E-03	.2703E-03	-.1052E-02
27	.4001E-01	-.2443E-01	-.7832E-02	/	-.2589E-03	.2651E-03	-.1101E-02
28	.4807E-01	-.2444E-01	-.9110E-02	/	-.9455E-04	.2560E-03	-.1201E-02
29	.5487E-01	-.2445E-01	-.9157E-02	/	.8486E-04	.2489E-03	-.1273E-02
30	.6206E-01	-.2446E-01	-.8096E-02	/	.3085E-03	.2417E-03	-.1340E-02
31	.6960E-01	-.2447E-01	-.5683E-02	/	.5764E-03	.2346E-03	-.1402E-02
32	.8530E-01	-.2449E-01	.3177E-02	/	.8761E-03	.2016E-03	-.1391E-02
33	.9282E-01	-.2449E-01	.7972E-02	/	.8684E-03	.1758E-03	-.1350E-02
34	.1002E+00	-.2450E-01	.1274E-01	/	.8657E-03	.1500E-03	-.1335E-02
35	.2871E-01	-.1195E-01	.4111E-04	/	.1552E-03	-.2788E-03	-.1041E-02
36	.2868E-01	-.1195E-01	-.1636E-04	/	-.1552E-03	.2805E-03	-.1042E-02
37	.2604E-01	-.2363E-01	.3067E-02	/	.3788E-03	-.2834E-03	-.1021E-02
38	.7787E-01	-.2624E-01	.1707E-02	/	-.8890E-03	-.2296E-03	-.1458E-02
39	.7840E-01	.5500E-02	.1240E-02	/	-.6715E-03	.2067E-03	-.7684E-03
40	.7458E-01	-.7869E-02	-.1672E-03	/	.1258E-03	-.4899E-04	-.1671E-02

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
41	.8126E-01	-.7870E-02	.3349E-03	/	.1254E-03	-.4904E-04	-.1671E-02
42	.7931E-01	.6705E-02	-.3172E-04	/	-.9991E-03	.1860E-03	-.6604E-03
43	.2600E-01	-.2365E-01	-.3050E-02	/	-.3783E-03	.2832E-03	-.1024E-02
44	.7793E-01	-.2626E-01	-.1674E-02	/	.8889E-03	.2275E-03	-.1460E-02
45	.8084E-01	-.2626E-01	.1043E-03	/	.8894E-03	.2274E-03	-.1460E-02
46	.8132E-01	-.7870E-02	-.3235E-03	/	-.1254E-03	.4663E-04	-.1673E-02
47	.7463E-01	-.7869E-02	.1784E-03	/	-.1258E-03	.4658E-04	-.1673E-02
48	.7846E-01	.5528E-02	-.1260E-02	/	.6718E-03	-.2090E-03	-.7703E-03
49	.7937E-01	.6739E-02	.4922E-05	/	.1000E-02	-.1885E-03	-.6621E-03
50	.8079E-01	-.2624E-01	-.7157E-04	/	-.8895E-03	-.2296E-03	-.1458E-02
51	.8301E-01	-.5111E-01	-.8773E-05	/	-.1220E-02	-.6679E-04	-.1459E-02
52	.8303E-01	-.5112E-01	.4146E-04	/	.1219E-02	.6379E-04	-.1459E-02
53	.7753E-01	-.8148E-02	-.1863E-04	/	-.5943E-03	.5208E-04	-.6610E-03
54	.7754E-01	-.8137E-02	-.8164E-05	/	.5962E-03	-.5492E-04	-.6615E-03
55	.7476E-01	-.6775E-02	-.1343E-03	/	.3265E-03	-.3989E-04	-.1671E-02
56	.7480E-01	-.6775E-02	.1455E-03	/	-.3264E-03	.3748E-04	-.1673E-02
57	-.3008E-03	.2123E-02	-.1333E-05	/	-.1789E-03	-.2575E-04	-.4444E-03
58	.2316E-01	.2264E-02	.1381E-02	/	.3401E-03	.3384E-03	-.5932E-03
59	.2383E-01	.2263E-02	.1764E-02	/	.3420E-03	.3384E-03	-.6033E-03
60	.2592E-01	.2263E-02	.2926E-02	/	.3464E-03	.3384E-03	-.6336E-03
61	.3537E-01	.2262E-02	.7851E-02	/	.3545E-03	-.3507E-02	-.6965E-03
62	.2316E-01	-.1088E-03	.2700E-04	/	.3404E-03	.3384E-03	-.5931E-03
63	-.3007E-03	.2122E-02	.1339E-05	/	.1787E-03	.2572E-04	-.4441E-03
64	.2313E-01	.2262E-02	-.1366E-02	/	-.3395E-03	-.3372E-03	-.5921E-03
65	.2380E-01	.2261E-02	-.1749E-02	/	-.3414E-03	-.3372E-03	-.6022E-03
66	.2589E-01	.2261E-02	-.2909E-02	/	-.3458E-03	-.3372E-03	-.6324E-03
67	.3532E-01	.2260E-02	-.7827E-02	/	-.3540E-03	.3520E-02	-.6950E-03
68	.2313E-01	-.1066E-03	-.1689E-04	/	-.3398E-03	-.3372E-03	-.5920E-03
69	-.1191E-03	.8469E-03	-.6005E-06	/	-.1622E-03	-.2291E-04	-.4444E-03
70	.0000E+00	.0000E+00	.0000E+00	/	-.1151E-03	-.1612E-04	-.4443E-03
71	.0000E+00	.0000E+00	.0000E+00	/	.1150E-03	.1610E-04	-.4442E-03
72	-.1190E-03	.8457E-03	.6028E-06	/	.1620E-03	.2288E-04	-.4442E-03
73	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
75	.2093E-01	.2360E-02	.2243E-04	/	.2844E-03	.2506E-03	-.5805E-03
76	.1952E-03	-.8170E-03	-.3133E-05	/	.1660E-03	.4575E-04	-.1212E-03
77	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
78	.2091E-01	.2362E-02	-.1231E-04	/	-.2840E-03	-.2494E-03	-.5798E-03
79	.1944E-03	-.8135E-03	.3126E-05	/	-.1652E-03	-.4553E-04	-.1211E-03
80	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
81	.5880E-03	.2123E-02	-.3591E-03	/	-.1789E-03	-.2574E-04	-.4444E-03

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
82	.5876E-03	.2122E-02	.3586E-03	/	.1786E-03	.2571E-04	-.4441E-03
83	-.8887E-03	-.6667E-10	.2302E-03	/	-.1151E-03	-.1612E-04	-.4443E-03
84	-.8884E-03	-.6667E-10	-.2299E-03	/	.1150E-03	.1610E-04	-.4442E-03
85	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
86	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

BEAM LOADS AND/OR STRESSES

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

BEAM NO. 1							
GLoads	2	-.3019E-09	.1526E-09	-.2073E+02	.1160E-10	.4970E-11	.1027E-08
GLoads	1	.3019E-09	.2464E+01	.2073E+02	-.6995E+02	-.4970E-11	.1657E-10
LLoads	2	.1526E-09	-.2073E+02	-.3019E-09	.4970E-11	.1027E-08	.1160E-10
LLoads	1	.2464E+01	.2073E+02	.3019E-09	-.4970E-11	.1657E-10	-.6995E+02
Stress	2	-.5916E-10	-.8033E+01	-.1170E-09	-.1827E-11	-.3217E-09	-.5472E-11
Stress	2	.2680E-09	-.3863E-09	.1932E-09			
Stress	1	.9551E+00	-.8033E+01	-.1170E-09	-.1827E-11	.5191E-11	-.3300E+02
Stress	1	.3395E+02	-.3204E+02	.1698E+02			
BEAM NO. 2							
GLoads	1	.3187E+03	.1550E+03	-.1117E+03	-.1041E+03	-.9813E+02	-.9024E+03
GLoads	8	-.3187E+03	-.1517E+03	.1117E+03	-.3987E+03	.9813E+02	-.5316E+03
LLoads	1	.1550E+03	-.1117E+03	.3187E+03	-.9813E+02	-.9024E+03	-.1041E+03
LLoads	8	-.1517E+03	.1117E+03	-.3187E+03	.9813E+02	-.5316E+03	-.3987E+03
Stress	1	-.6006E+02	-.4330E+02	.1235E+03	.3608E+02	.2827E+03	.4910E+02
Stress	1	.2718E+03	-.3919E+03	.1992E+03			
Stress	8	-.5879E+02	-.4330E+02	.1235E+03	.3608E+02	-.1665E+03	-.1881E+03
Stress	8	.2958E+03	-.4134E+03	.2098E+03			
BEAM NO. 3							
GLoads	8	.3187E+03	.1517E+03	-.1117E+03	.3987E+03	-.9813E+02	.5316E+03
GLoads	9	-.3187E+03	-.1477E+03	.1117E+03	-.1013E+04	.9813E+02	-.2284E+04
LLoads	8	.1517E+03	-.1117E+03	.3187E+03	-.9813E+02	.5316E+03	.3987E+03
LLoads	9	-.1477E+03	.1117E+03	-.3187E+03	.9813E+02	-.2284E+04	-.1013E+04
Stress	8	-.5879E+02	-.4330E+02	.1235E+03	.3608E+02	-.1665E+03	-.1881E+03
Stress	8	.2958E+03	-.4134E+03	.2098E+03			
Stress	9	-.5723E+02	-.4330E+02	.1235E+03	.3608E+02	-.7156E+03	-.4779E+03
Stress	9	.1136E+04	-.1251E+04	.6264E+03			
BEAM NO. 4							
GLoads	9	.3187E+03	.1477E+03	-.1117E+03	.1013E+04	-.9813E+02	.2284E+04
GLoads	10	-.3187E+03	-.1447E+03	.1117E+03	-.1460E+04	.9813E+02	-.3559E+04
LLoads	9	.1477E+03	-.1117E+03	.3187E+03	-.9813E+02	.2284E+04	.1013E+04
LLoads	10	-.1447E+03	.1117E+03	-.3187E+03	.9813E+02	-.3559E+04	-.1460E+04
Stress	9	-.5723E+02	-.4330E+02	.1235E+03	.3608E+02	-.7156E+03	-.4779E+03
Stress	9	.1136E+04	-.1251E+04	.6264E+03			
Stress	10	-.5610E+02	-.4330E+02	.1235E+03	.3608E+02	-.1115E+04	-.6887E+03
Stress	10	.1748E+04	-.1860E+04	.9306E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 5							
GLoads	10	-.4145E+02	.1447E+03	-.1164E+03	.1460E+04	-.9813E+02	.3559E+04
GLoads	11	.4145E+02	-.1396E+03	.1164E+03	-.2275E+04	.9813E+02	-.3269E+04
LLoads	10	.1447E+03	-.1164E+03	-.4145E+02	-.9813E+02	.3559E+04	.1460E+04
LLoads	11	-.1396E+03	.1164E+03	.4145E+02	.9813E+02	-.3269E+04	-.2275E+04
Stress	10	-.5610E+02	-.4510E+02	-.1607E+02	.3608E+02	-.1115E+04	-.6887E+03
Stress	10	.1748E+04	-.1860E+04	.9306E+03			
Stress	11	-.5412E+02	-.4510E+02	-.1607E+02	.3608E+02	-.1024E+04	-.1073E+04
Stress	11	.2043E+04	-.2151E+04	.1076E+04			
BEAM NO. 6							
GLoads	11	-.4145E+02	.1396E+03	-.1164E+03	.2275E+04	-.9813E+02	.3269E+04
GLoads	12	.4145E+02	-.1356E+03	.1164E+03	-.2915E+04	.9813E+02	-.3041E+04
LLoads	11	.1396E+03	-.1164E+03	-.4145E+02	-.9813E+02	.3269E+04	.2275E+04
LLoads	12	-.1356E+03	.1164E+03	.4145E+02	.9813E+02	-.3041E+04	-.2915E+04
Stress	11	-.5412E+02	-.4510E+02	-.1607E+02	.3608E+02	-.1024E+04	-.1073E+04
Stress	11	.2043E+04	-.2151E+04	.1076E+04			
Stress	12	-.5256E+02	-.4510E+02	-.1607E+02	.3608E+02	-.9526E+03	-.1375E+04
Stress	12	.2275E+04	-.2380E+04	.1191E+04			
BEAM NO. 7							
GLoads	12	-.4145E+02	.1356E+03	-.1164E+03	.2915E+04	-.9813E+02	.3041E+04
GLoads	13	.4145E+02	-.1316E+03	.1164E+03	-.3555E+04	.9813E+02	-.2813E+04
LLoads	12	.1356E+03	-.1164E+03	-.4145E+02	-.9813E+02	.3041E+04	.2915E+04
LLoads	13	-.1316E+03	.1164E+03	.4145E+02	.9813E+02	-.2813E+04	-.3555E+04
Stress	12	-.5256E+02	-.4510E+02	-.1607E+02	.3608E+02	-.9526E+03	-.1375E+04
Stress	12	.2275E+04	-.2380E+04	.1191E+04			
Stress	13	-.5101E+02	-.4510E+02	-.1607E+02	.3608E+02	-.8812E+03	-.1677E+04
Stress	13	.2507E+04	-.2609E+04	.1305E+04			
BEAM NO. 8							
GLoads	13	-.4145E+02	.1316E+03	-.1164E+03	.3555E+04	-.9813E+02	.2813E+04
GLoads	14	.4145E+02	-.1276E+03	.1164E+03	-.4195E+04	.9813E+02	-.2585E+04
LLoads	13	.1316E+03	-.1164E+03	-.4145E+02	-.9813E+02	.2813E+04	.3555E+04
LLoads	14	-.1276E+03	.1164E+03	.4145E+02	.9813E+02	-.2585E+04	-.4195E+04
Stress	13	-.5101E+02	-.4510E+02	-.1607E+02	.3608E+02	-.8812E+03	-.1677E+04
Stress	13	.2507E+04	-.2609E+04	.1305E+04			
Stress	14	-.4945E+02	-.4510E+02	-.1607E+02	.3608E+02	-.8097E+03	-.1979E+04
Stress	14	.2739E+04	-.2838E+04	.1419E+04			
BEAM NO. 9							
GLoads	14	-.4145E+02	.1276E+03	-.1164E+03	.4195E+04	-.9813E+02	.2585E+04

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

GLoads	3	.4145E+02	-.1236E+03	.1164E+03	-.4835E+04	.9813E+02	-.2357E+04
LLoads	14	.1276E+03	-.1164E+03	-.4145E+02	-.9813E+02	.2585E+04	.4195E+04
LLoads	3	-.1236E+03	.1164E+03	.4145E+02	.9813E+02	-.2357E+04	-.4835E+04
Stress	14	-.4945E+02	-.4510E+02	-.1607E+02	.3608E+02	-.8097E+03	-.1979E+04
Stress	14	.2739E+04	-.2838E+04	.1419E+04			
Stress	3	-.4789E+02	-.4510E+02	-.1607E+02	.3608E+02	-.7383E+03	-.2281E+04
Stress	3	.2971E+04	-.3067E+04	.1534E+04			
BEAM NO. 10							
GLoads	3	.2081E+03	.9903E+02	-.1289E+02	-.2168E+03	-.3684E+03	-.3514E+04
GLoads	15	-.2081E+03	-.9502E+02	.1289E+02	.1459E+03	.3684E+03	.2369E+04
LLoads	3	.9903E+02	-.1289E+02	.2081E+03	-.3684E+03	-.3514E+04	-.2168E+03
LLoads	15	-.9502E+02	.1289E+02	-.2081E+03	.3684E+03	.2369E+04	.1459E+03
Stress	3	-.3838E+02	-.4995E+01	.8067E+02	.1354E+03	.1101E+04	.1022E+03
Stress	3	.1165E+04	-.1242E+04	.6354E+03			
Stress	15	-.3683E+02	-.4995E+01	.8067E+02	.1354E+03	.7423E+03	.6881E+02
Stress	15	.7743E+03	-.8479E+03	.4451E+03			
BEAM NO. 11							
GLoads	15	.2081E+03	.9502E+02	-.1289E+02	-.1459E+03	-.3684E+03	-.2369E+04
GLoads	16	-.2081E+03	-.9100E+02	.1289E+02	.7500E+02	.3684E+03	.1225E+04
LLoads	15	.9502E+02	-.1289E+02	.2081E+03	-.3684E+03	-.2369E+04	-.1459E+03
LLoads	16	-.9100E+02	.1289E+02	-.2081E+03	.3684E+03	.1225E+04	.7500E+02
Stress	15	-.3683E+02	-.4995E+01	.8067E+02	.1354E+03	.7423E+03	.6881E+02
Stress	15	.7743E+03	-.8479E+03	.4451E+03			
Stress	16	-.3527E+02	-.4995E+01	.8067E+02	.1354E+03	.3837E+03	.3538E+02
Stress	16	.3838E+03	-.4543E+03	.2645E+03			
BEAM NO. 12							
GLoads	16	.2081E+03	.9100E+02	-.1289E+02	-.7500E+02	-.3684E+03	-.1225E+04
GLoads	17	-.2081E+03	-.8699E+02	.1289E+02	.4126E+01	.3684E+03	.8001E+02
LLoads	16	.9100E+02	-.1289E+02	.2081E+03	-.3684E+03	-.1225E+04	-.7500E+02
LLoads	17	-.8699E+02	.1289E+02	-.2081E+03	.3684E+03	.8001E+02	.4126E+01
Stress	16	-.3527E+02	-.4995E+01	.8067E+02	.1354E+03	.3837E+03	.3538E+02
Stress	16	.3838E+03	-.4543E+03	.2645E+03			
Stress	17	-.3372E+02	-.4995E+01	.8067E+02	.1354E+03	.2507E+02	.1946E+01
Stress	17	-.6703E+01	-.6073E+02	.1388E+03			
BEAM NO. 13							
GLoads	17	.2081E+03	.8699E+02	-.1289E+02	-.4126E+01	-.3684E+03	-.8001E+02
GLoads	4	-.2081E+03	-.8297E+02	.1289E+02	-.6675E+02	.3684E+03	-.1065E+04
LLoads	17	.8699E+02	-.1289E+02	.2081E+03	-.3684E+03	-.8001E+02	-.4126E+01

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

LLoads	4	-.8297E+02	.1289E+02	-.2081E+03	.3684E+03	-.1065E+04	-.6675E+02
Stress	17	-.3372E+02	-.4995E+01	.8067E+02	.1354E+03	.2507E+02	.1946E+01
Stress	17	-.6703E+01	-.6073E+02	.1388E+03			
Stress	4	-.3216E+02	-.4995E+01	.8067E+02	.1354E+03	-.3336E+03	-.3149E+02
Stress	4	.3329E+03	-.3972E+03	.2404E+03			
BEAM NO. 14							
GLoads	38	-.2495E+03	-.1126E+04	.9620E+02	-.1676E+04	.2014E+02	.5870E+04
GLoads	5	.2495E+03	.1130E+04	-.9620E+02	.1676E+04	.8938E+03	.4846E+04
LLoads	38	.2495E+03	-.1126E+04	-.9620E+02	.1676E+04	.2014E+02	-.5870E+04
LLoads	5	-.2495E+03	.1130E+04	.9620E+02	-.1676E+04	.8938E+03	-.4846E+04
Stress	38	-.1569E+03	-.7081E+03	-.6051E+02	-.1232E+04	-.2629E+02	.7663E+04
Stress	38	.7533E+04	-.7846E+04	.4112E+04			
Stress	5	-.1569E+03	-.7108E+03	-.6051E+02	-.1232E+04	.1167E+04	-.6327E+04
Stress	5	.7336E+04	-.7650E+04	.4019E+04			
BEAM NO. 15							
GLoads	5	-.2495E+03	.4957E+03	-.1222E+02	.9375E+03	-.5220E+03	-.4849E+04
GLoads	6	.2495E+03	-.4897E+03	.1222E+02	-.9375E+03	.3590E+03	-.1724E+04
LLoads	5	.2495E+03	.4957E+03	.1222E+02	-.9375E+03	-.5220E+03	.4849E+04
LLoads	6	-.2495E+03	-.4897E+03	-.1222E+02	.9375E+03	.3590E+03	.1724E+04
Stress	5	-.1569E+03	.3118E+03	.7685E+01	.6893E+03	.6814E+03	-.6330E+04
Stress	5	.6854E+04	-.7168E+04	.3650E+04			
Stress	6	-.1569E+03	.3080E+03	.7685E+01	.6893E+03	.4686E+03	.2251E+04
Stress	6	.2563E+04	-.2877E+04	.1595E+04			
BEAM NO. 16							
GLoads	6	-.2140E-01	.3708E+03	-.4161E+02	.1405E+04	.5306E+02	-.1353E+04
GLoads	7	.2140E-01	-.3691E+03	.4161E+02	-.1405E+04	-.2054E+03	-.6613E+00
LLoads	6	.2140E-01	.3708E+03	.4161E+02	-.1405E+04	.5306E+02	.1353E+04
LLoads	7	-.2140E-01	-.3691E+03	-.4161E+02	.1405E+04	-.2054E+03	.6613E+00
Stress	6	-.1346E-01	.2332E+03	.2617E+02	.1033E+04	-.6927E+02	-.1767E+04
Stress	6	.1836E+04	-.1836E+04	.1382E+04			
Stress	7	-.1346E-01	.2321E+03	.2617E+02	.1033E+04	-.2681E+03	.8634E+00
Stress	7	.2690E+03	-.2690E+03	.1041E+04			
BEAM NO. 17							
GLoads	4	.2081E+03	.8297E+02	-.1289E+02	.6675E+02	-.3684E+03	.1065E+04
GLoads	39	-.2081E+03	-.7029E+02	.1289E+02	.2168E+03	.7404E+02	.1748E+04
LLoads	4	-.2075E+03	-.8463E+02	.1289E+02	.2075E+03	-.2660E+03	-.7651E+03
LLoads	39	.1987E+03	.9376E+02	-.1289E+02	-.2075E+03	-.9704E+02	-.1748E+04
Stress	4	.1305E+03	-.5323E+02	.8105E+01	-.1526E+03	.3473E+03	.9988E+03
Stress	4	.1477E+04	-.1216E+04	.7539E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	39	.1249E+03	-.5897E+02	.8105E+01	-.1526E+03	-.1267E+03	-.2282E+04
Stress	39	.2533E+04	-.2283E+04	.1276E+04			
BEAM NO. 18							
GLoads	37	.4135E+02	-.1690E+03	-.1651E+02	.1144E+03	-.3072E+03	.9805E+03
GLoads	6	-.4135E+02	.1891E+03	.1651E+02	-.8242E+03	-.6980E+02	.1330E+04
LLoads	37	-.1686E+03	-.4274E+02	.1651E+02	-.3250E+03	-.1012E+02	-.8950E+03
LLoads	6	.1864E+03	.5217E+02	-.1651E+02	.3250E+03	-.7276E+03	-.1226E+04
Stress	37	.1060E+03	-.2688E+02	.1038E+02	.2390E+03	.1321E+02	.1168E+04
Stress	37	.1288E+04	-.1076E+04	.6868E+03			
Stress	6	.1172E+03	-.3281E+02	.1038E+02	.2390E+03	-.9499E+03	-.1600E+04
Stress	6	.2667E+04	-.2433E+04	.1355E+04			
BEAM NO. 19							
GLoads	19	.4627E-09	-.2718E-09	.2069E+02	.7780E-12	.3944E-11	-.1354E-08
GLoads	18	-.4627E-09	.2464E+01	-.2069E+02	.6982E+02	-.3944E-11	.2606E-09
LLoads	19	-.2718E-09	.2069E+02	.4627E-09	.3944E-11	-.1354E-08	.7780E-12
LLoads	18	.2464E+01	-.2069E+02	-.4627E-09	-.3944E-11	.2606E-09	.6982E+02
Stress	19	.1053E-09	.8018E+01	.1793E-09	-.1450E-11	.4242E-09	-.3670E-12
Stress	19	.5299E-09	-.3192E-09	.2650E-09			
Stress	18	.9551E+00	.8018E+01	.1793E-09	-.1450E-11	.8163E-10	.3293E+02
Stress	18	.3389E+02	-.3198E+02	.1694E+02			
BEAM NO. 20							
GLoads	18	.3176E+03	.1543E+03	.1116E+03	.1030E+03	.1017E+03	-.8997E+03
GLoads	25	-.3176E+03	-.1510E+03	-.1116E+03	.3992E+03	-.1017E+03	-.5297E+03
LLoads	18	.1543E+03	.1116E+03	.3176E+03	.1017E+03	-.8997E+03	.1030E+03
LLoads	25	-.1510E+03	-.1116E+03	-.3176E+03	-.1017E+03	-.5297E+03	.3992E+03
Stress	18	-.5982E+02	.4326E+02	.1231E+03	-.3740E+02	.2819E+03	-.4860E+02
Stress	18	.2706E+03	-.3903E+03	.1987E+03			
Stress	25	-.5854E+02	.4326E+02	.1231E+03	-.3740E+02	-.1659E+03	.1883E+03
Stress	25	.2957E+03	-.4128E+03	.2098E+03			
BEAM NO. 21							
GLoads	25	.3176E+03	.1510E+03	.1116E+03	-.3992E+03	.1017E+03	.5297E+03
GLoads	26	-.3176E+03	-.1470E+03	-.1116E+03	.1013E+04	-.1017E+03	-.2277E+04
LLoads	25	.1510E+03	.1116E+03	.3176E+03	.1017E+03	.5297E+03	-.3992E+03
LLoads	26	-.1470E+03	-.1116E+03	-.3176E+03	-.1017E+03	-.2277E+04	.1013E+04
Stress	25	-.5854E+02	.4326E+02	.1231E+03	-.3740E+02	-.1659E+03	.1883E+03
Stress	25	.2957E+03	-.4128E+03	.2098E+03			
Stress	26	-.5699E+02	.4326E+02	.1231E+03	-.3740E+02	-.7132E+03	.4779E+03
Stress	26	.1134E+04	-.1248E+04	.6252E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 22							
GLoads	26	.3176E+03	.1470E+03	.1116E+03	-.1013E+04	.1017E+03	.2277E+04
GLoads	27	-.3176E+03	-.1441E+03	-.1116E+03	.1460E+04	-.1017E+03	-.3547E+04
LLoads	26	.1470E+03	.1116E+03	.3176E+03	.1017E+03	.2277E+04	-.1013E+04
LLoads	27	-.1441E+03	-.1116E+03	-.3176E+03	-.1017E+03	-.3547E+04	.1460E+04
Stress	26	-.5699E+02	.4326E+02	.1231E+03	-.3740E+02	-.7132E+03	.4779E+03
Stress	26	.1134E+04	-.1248E+04	.6252E+03			
Stress	27	-.5586E+02	.4326E+02	.1231E+03	-.3740E+02	-.1111E+04	.6884E+03
Stress	27	.1744E+04	-.1856E+04	.9286E+03			
BEAM NO. 23							
GLoads	27	-.4094E+02	.1441E+03	.1163E+03	-.1460E+04	.1017E+03	.3547E+04
GLoads	28	.4094E+02	-.1390E+03	-.1163E+03	.2274E+04	-.1017E+03	-.3261E+04
LLoads	27	.1441E+03	.1163E+03	-.4094E+02	.1017E+03	.3547E+04	-.1460E+04
LLoads	28	-.1390E+03	-.1163E+03	.4094E+02	-.1017E+03	-.3261E+04	.2274E+04
Stress	27	-.5586E+02	.4507E+02	-.1587E+02	-.3740E+02	-.1111E+04	.6884E+03
Stress	27	.1744E+04	-.1856E+04	.9286E+03			
Stress	28	-.5387E+02	.4507E+02	-.1587E+02	-.3740E+02	-.1022E+04	.1072E+04
Stress	28	.2040E+04	-.2148E+04	.1075E+04			
BEAM NO. 24							
GLoads	28	-.4094E+02	.1390E+03	.1163E+03	-.2274E+04	.1017E+03	.3261E+04
GLoads	29	.4094E+02	-.1350E+03	-.1163E+03	.2913E+04	-.1017E+03	-.3036E+04
LLoads	28	.1390E+03	.1163E+03	-.4094E+02	.1017E+03	.3261E+04	-.2274E+04
LLoads	29	-.1350E+03	-.1163E+03	.4094E+02	-.1017E+03	-.3036E+04	.2913E+04
Stress	28	-.5387E+02	.4507E+02	-.1587E+02	-.3740E+02	-.1022E+04	.1072E+04
Stress	28	.2040E+04	-.2148E+04	.1075E+04			
Stress	29	-.5232E+02	.4507E+02	-.1587E+02	-.3740E+02	-.9510E+03	.1374E+04
Stress	29	.2273E+04	-.2377E+04	.1189E+04			
BEAM NO. 25							
GLoads	29	-.4094E+02	.1350E+03	.1163E+03	-.2913E+04	.1017E+03	.3036E+04
GLoads	30	.4094E+02	-.1310E+03	-.1163E+03	.3553E+04	-.1017E+03	-.2810E+04
LLoads	29	.1350E+03	.1163E+03	-.4094E+02	.1017E+03	.3036E+04	-.2913E+04
LLoads	30	-.1310E+03	-.1163E+03	.4094E+02	-.1017E+03	-.2810E+04	.3553E+04
Stress	29	-.5232E+02	.4507E+02	-.1587E+02	-.3740E+02	-.9510E+03	.1374E+04
Stress	29	.2273E+04	-.2377E+04	.1189E+04			
Stress	30	-.5076E+02	.4507E+02	-.1587E+02	-.3740E+02	-.8804E+03	.1676E+04
Stress	30	.2506E+04	-.2607E+04	.1304E+04			
BEAM NO. 26							
GLoads	30	-.4094E+02	.1310E+03	.1163E+03	-.3553E+04	.1017E+03	.2810E+04

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	31	.4094E+02	-.1270E+03	-.1163E+03	.4192E+04	-.1017E+03	-.2585E+04
LLoads	30	.1310E+03	.1163E+03	-.4094E+02	.1017E+03	.2810E+04	-.3553E+04
LLoads	31	-.1270E+03	-.1163E+03	.4094E+02	-.1017E+03	-.2585E+04	.4192E+04
Stress	30	-.5076E+02	.4507E+02	-.1587E+02	-.3740E+02	-.8804E+03	.1676E+04
Stress	30	.2506E+04	-.2607E+04	.1304E+04			
Stress	31	-.4921E+02	.4507E+02	-.1587E+02	-.3740E+02	-.8099E+03	.1978E+04
Stress	31	.2738E+04	-.2837E+04	.1419E+04			
BEAM NO. 27							
GLoads	31	-.4094E+02	.1270E+03	.1163E+03	-.4192E+04	.1017E+03	.2585E+04
GLoads	20	.4094E+02	-.1229E+03	-.1163E+03	.4832E+04	-.1017E+03	-.2360E+04
LLoads	31	.1270E+03	.1163E+03	-.4094E+02	.1017E+03	.2585E+04	-.4192E+04
LLoads	20	-.1229E+03	-.1163E+03	.4094E+02	-.1017E+03	-.2360E+04	.4832E+04
Stress	31	-.4921E+02	.4507E+02	-.1587E+02	-.3740E+02	-.8099E+03	.1978E+04
Stress	31	.2738E+04	-.2837E+04	.1419E+04			
Stress	20	-.4765E+02	.4507E+02	-.1587E+02	-.3740E+02	-.7394E+03	.2279E+04
Stress	20	.2971E+04	-.3066E+04	.1534E+04			
BEAM NO. 28							
GLoads	20	.2080E+03	.9886E+02	.1287E+02	.2163E+03	.3683E+03	-.3510E+04
GLoads	32	-.2080E+03	-.9484E+02	-.1287E+02	-.1456E+03	-.3683E+03	.2367E+04
LLoads	20	.9886E+02	.1287E+02	.2080E+03	.3683E+03	-.3510E+04	.2163E+03
LLoads	32	-.9484E+02	-.1287E+02	-.2080E+03	-.3683E+03	.2367E+04	-.1456E+03
Stress	20	-.3832E+02	.4988E+01	.8060E+02	-.1354E+03	.1100E+04	-.1020E+03
Stress	20	.1163E+04	-.1240E+04	.6347E+03			
Stress	32	-.3676E+02	.4988E+01	.8060E+02	-.1354E+03	.7414E+03	-.6866E+02
Stress	32	.7733E+03	-.8468E+03	.4445E+03			
BEAM NO. 29							
GLoads	32	.2080E+03	.9484E+02	.1287E+02	.1456E+03	.3683E+03	-.2367E+04
GLoads	33	-.2080E+03	-.9083E+02	-.1287E+02	-.7479E+02	-.3683E+03	.1223E+04
LLoads	32	.9484E+02	.1287E+02	.2080E+03	.3683E+03	-.2367E+04	.1456E+03
LLoads	33	-.9083E+02	-.1287E+02	-.2080E+03	-.3683E+03	.1223E+04	-.7479E+02
Stress	32	-.3676E+02	.4988E+01	.8060E+02	-.1354E+03	.7414E+03	-.6866E+02
Stress	32	.7733E+03	-.8468E+03	.4445E+03			
Stress	33	-.3520E+02	.4988E+01	.8060E+02	-.1354E+03	.3831E+03	-.3528E+02
Stress	33	.3832E+03	-.4536E+03	.2641E+03			
BEAM NO. 30							
GLoads	33	.2080E+03	.9083E+02	.1287E+02	.7479E+02	.3683E+03	-.1223E+04
GLoads	34	-.2080E+03	-.8681E+02	-.1287E+02	-.4021E+01	-.3683E+03	.7910E+02
LLoads	33	.9083E+02	.1287E+02	.2080E+03	.3683E+03	-.1223E+04	.7479E+02

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	34	-.8681E+02	-.1287E+02	-.2080E+03	-.3683E+03	.7910E+02	-.4021E+01
Stress	33	-.3520E+02	.4988E+01	.8060E+02	-.1354E+03	.3831E+03	-.3528E+02
Stress	33	.3832E+03	-.4536E+03	.2641E+03			
Stress	34	-.3365E+02	.4988E+01	.8060E+02	-.1354E+03	.2478E+02	-.1897E+01
Stress	34	-.6970E+01	-.6032E+02	.1387E+03			
BEAM NO. 31							
GLoads	34	.2080E+03	.8681E+02	.1287E+02	.4021E+01	.3683E+03	-.7910E+02
GLoads	21	-.2080E+03	-.8279E+02	-.1287E+02	.6675E+02	-.3683E+03	-.1065E+04
LLoads	34	.8681E+02	.1287E+02	.2080E+03	.3683E+03	-.7910E+02	.4021E+01
LLoads	21	-.8279E+02	-.1287E+02	-.2080E+03	-.3683E+03	-.1065E+04	.6675E+02
Stress	34	-.3365E+02	.4988E+01	.8060E+02	-.1354E+03	.2478E+02	-.1897E+01
Stress	34	-.6970E+01	-.6032E+02	.1387E+03			
Stress	21	-.3209E+02	.4988E+01	.8060E+02	-.1354E+03	-.3335E+03	.3149E+02
Stress	21	.3329E+03	-.3971E+03	.2403E+03			
BEAM NO. 32							
GLoads	44	-.2489E+03	-.1126E+04	-.9626E+02	.1676E+04	-.1982E+02	.5871E+04
GLoads	22	.2489E+03	.1130E+04	.9626E+02	-.1676E+04	-.8947E+03	.4848E+04
LLoads	44	.2489E+03	-.1126E+04	.9626E+02	-.1676E+04	-.1982E+02	-.5871E+04
LLoads	22	-.2489E+03	.1130E+04	-.9626E+02	.1676E+04	-.8947E+03	-.4848E+04
Stress	44	-.1566E+03	-.7083E+03	.6054E+02	.1232E+04	.2588E+02	.7665E+04
Stress	44	.7534E+04	-.7847E+04	.4112E+04			
Stress	22	-.1566E+03	-.7110E+03	.6054E+02	.1232E+04	-.1168E+04	-.6329E+04
Stress	22	.7341E+04	-.7654E+04	.4020E+04			
BEAM NO. 33							
GLoads	22	-.2490E+03	.4954E+03	.1216E+02	-.9378E+03	.5214E+03	-.4846E+04
GLoads	23	.2490E+03	-.4894E+03	-.1216E+02	.9378E+03	-.3592E+03	-.1722E+04
LLoads	22	.2490E+03	.4954E+03	-.1216E+02	.9378E+03	.5214E+03	.4846E+04
LLoads	23	-.2490E+03	-.4894E+03	.1216E+02	-.9378E+03	-.3592E+03	.1722E+04
Stress	22	-.1566E+03	.3115E+03	-.7649E+01	-.6895E+03	-.6807E+03	-.6326E+04
Stress	22	.6850E+04	-.7163E+04	.3647E+04			
Stress	23	-.1566E+03	.3078E+03	-.7649E+01	-.6895E+03	-.4689E+03	.2248E+04
Stress	23	.2561E+04	-.2874E+04	.1594E+04			
BEAM NO. 34							
GLoads	23	.2140E-01	.3709E+03	.4161E+02	-.1407E+04	-.5216E+02	-.1355E+04
GLoads	24	-.2140E-01	-.3692E+03	-.4161E+02	.1407E+04	.2045E+03	.6613E+00
LLoads	23	-.2140E-01	.3709E+03	-.4161E+02	.1407E+04	-.5216E+02	.1355E+04
LLoads	24	.2140E-01	-.3692E+03	.4161E+02	-.1407E+04	.2045E+03	-.6613E+00
Stress	23	.1346E-01	.2333E+03	-.2617E+02	-.1035E+04	.6809E+02	-.1769E+04
Stress	23	.1837E+04	-.1837E+04	.1383E+04			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	24	.1346E-01	.2322E+03	-.2617E+02	-.1035E+04	.2669E+03	-.8634E+00
Stress	24	.2678E+03	-.2678E+03	.1043E+04			
BEAM NO. 35							
GLoads	21	.2080E+03	.8279E+02	.1287E+02	-.6675E+02	.3683E+03	.1065E+04
GLoads	48	-.2080E+03	-.7012E+02	-.1287E+02	-.2163E+03	-.7439E+02	-.1748E+04
LLoads	21	-.2072E+03	-.8463E+02	-.1287E+02	-.2074E+03	.2660E+03	-.7650E+03
LLoads	48	.1984E+03	.9376E+02	.1287E+02	.2074E+03	.9650E+02	-.1748E+04
Stress	21	.1303E+03	-.5323E+02	-.8093E+01	.1525E+03	-.3473E+03	.9987E+03
Stress	21	.1476E+04	-.1216E+04	.7538E+03			
Stress	48	.1248E+03	-.5897E+02	-.8093E+01	.1525E+03	.1260E+03	-.2282E+04
Stress	48	.2533E+04	-.2283E+04	.1275E+04			
BEAM NO. 36							
GLoads	43	.4104E+02	-.1683E+03	.1658E+02	-.1125E+03	.3089E+03	.9794E+03
GLoads	23	-.4104E+02	.1884E+03	-.1658E+02	.8256E+03	.6984E+02	.1330E+04
LLoads	43	-.1679E+03	-.4270E+02	-.1658E+02	.3256E+03	.1242E+02	-.8940E+03
LLoads	23	.1856E+03	.5214E+02	.1658E+02	-.3256E+03	.7287E+03	-.1225E+04
Stress	43	.1056E+03	-.2686E+02	-.1043E+02	-.2394E+03	-.1621E+02	.1167E+04
Stress	43	.1289E+04	-.1078E+04	.6875E+03			
Stress	23	.1168E+03	-.3279E+02	-.1043E+02	-.2394E+03	.9513E+03	-.1600E+04
Stress	23	.2668E+04	-.2434E+04	.1355E+04			
BEAM NO. 37							
GLoads	50	-.4698E-01	.1150E+04	-.1997E+03	.7078E+04	-.2491E+03	.6944E+00
GLoads	51	.4698E-01	-.3286E+03	.1997E+03	.4012E+04	.2498E+03	-.6944E+00
LLoads	50	.1997E+03	.1150E+04	-.4698E-01	-.6944E+00	-.2491E+03	.7078E+04
LLoads	51	-.1997E+03	-.3286E+03	.4698E-01	.6944E+00	.2498E+03	.4012E+04
Stress	50	-.1256E+03	.7233E+03	-.2955E-01	.5106E+00	.3252E+03	-.9240E+04
Stress	50	.9439E+04	-.9691E+04	.4845E+04			
Stress	51	-.1256E+03	.2067E+03	-.2955E-01	.5106E+00	.3261E+03	.5238E+04
Stress	51	.5438E+04	-.5689E+04	.2845E+04			
BEAM NO. 38							
GLoads	51	-.4698E-01	.3286E+03	-.1997E+03	-.4012E+04	-.2498E+03	.6944E+00
GLoads	52	.4698E-01	.3285E+03	.1997E+03	.4013E+04	.2503E+03	-.6944E+00
LLoads	51	.1997E+03	.3286E+03	-.4698E-01	-.6944E+00	-.2498E+03	-.4012E+04
LLoads	52	-.1997E+03	.3285E+03	.4698E-01	.6944E+00	.2503E+03	.4013E+04
Stress	51	-.1256E+03	.2067E+03	-.2955E-01	.5106E+00	.3261E+03	.5238E+04
Stress	51	.5438E+04	-.5689E+04	.2845E+04			
Stress	52	-.1256E+03	-.2066E+03	-.2955E-01	.5106E+00	.3268E+03	.5239E+04
Stress	52	.5440E+04	-.5691E+04	.2846E+04			

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Lloads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

BEAM NO. 39							
Gloads	52	-.4698E-01	-.3285E+03	-.1997E+03	-.4013E+04	-.2503E+03	.6944E+00
Gloads	45	.4698E-01	.1150E+04	.1997E+03	-.7075E+04	.2510E+03	-.6944E+00
Lloads	52	.1997E+03	-.3285E+03	-.4698E-01	-.6944E+00	-.2503E+03	-.4013E+04
Lloads	45	-.1997E+03	.1150E+04	.4698E-01	.6944E+00	.2510E+03	-.7075E+04
Stress	52	-.1256E+03	-.2066E+03	-.2955E-01	.5106E+00	.3268E+03	.5239E+04
Stress	52	.5440E+04	-.5691E+04	.2846E+04			
Stress	45	-.1256E+03	-.7232E+03	-.2955E-01	.5106E+00	.3277E+03	-.9237E+04
Stress	45	.9439E+04	-.9690E+04	.4845E+04			
BEAM NO. 40							
Gloads	41	-.2590E-01	.9451E+01	.7478E+03	.2034E+03	-.5180E+02	.6190E+00
Gloads	46	.2590E-01	.9448E+01	-.7478E+03	-.2033E+03	.5289E+02	-.6190E+00
Lloads	41	-.7478E+03	.9451E+01	-.2590E-01	-.6190E+00	-.5180E+02	.2034E+03
Lloads	46	.7478E+03	.9448E+01	.2590E-01	.6190E+00	.5289E+02	-.2033E+03
Stress	41	.4703E+03	.5944E+01	-.1629E-01	.4551E+00	.6762E+02	-.2655E+03
Stress	41	.8035E+03	.1372E+03	.4017E+03			
Stress	46	.4703E+03	-.5942E+01	-.1629E-01	.4551E+00	.6904E+02	-.2654E+03
Stress	46	.8048E+03	.1359E+03	.4024E+03			
BEAM NO. 41							
Gloads	42	-.2140E-01	.3689E+03	-.4161E+02	.1488E+04	.2054E+03	.6185E+00
Gloads	53	.2140E-01	-.1054E+03	.4161E+02	.2069E+04	-.2050E+03	-.6185E+00
Lloads	42	.4161E+02	.3689E+03	-.2140E-01	-.6185E+00	.2054E+03	.1488E+04
Lloads	53	-.4161E+02	-.1054E+03	.2140E-01	.6185E+00	-.2050E+03	.2069E+04
Stress	42	-.2617E+02	.2320E+03	-.1346E-01	.4548E+00	-.2681E+03	-.1942E+04
Stress	42	.2184E+04	-.2236E+04	.1118E+04			
Stress	53	-.2617E+02	.6626E+02	-.1346E-01	.4548E+00	-.2677E+03	.2701E+04
Stress	53	.2943E+04	-.2995E+04	.1498E+04			
BEAM NO. 42							
Gloads	53	-.2140E-01	.1054E+03	-.4161E+02	-.2069E+04	.2050E+03	.6185E+00
Gloads	54	.2140E-01	.1055E+03	.4161E+02	.2069E+04	-.2048E+03	-.6185E+00
Lloads	53	.4161E+02	.1054E+03	-.2140E-01	-.6185E+00	.2050E+03	-.2069E+04
Lloads	54	-.4161E+02	.1055E+03	.2140E-01	.6185E+00	-.2048E+03	.2069E+04
Stress	53	-.2617E+02	.6626E+02	-.1346E-01	.4548E+00	-.2677E+03	.2701E+04
Stress	53	.2943E+04	-.2995E+04	.1498E+04			
Stress	54	-.2617E+02	-.6634E+02	-.1346E-01	.4548E+00	-.2673E+03	.2701E+04
Stress	54	.2942E+04	-.2994E+04	.1497E+04			
BEAM NO. 43							
Gloads	54	-.2140E-01	-.1055E+03	-.4161E+02	-.2069E+04	.2048E+03	.6185E+00

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	49	.2140E-01	.3690E+03	.4161E+02	-.1490E+04	-.2045E+03	-.6185E+00
LLoads	54	.4161E+02	-.1055E+03	-.2140E-01	-.6185E+00	.2048E+03	-.2069E+04
LLoads	49	-.4161E+02	.3690E+03	.2140E-01	.6185E+00	-.2045E+03	-.1490E+04
Stress	54	-.2617E+02	-.6634E+02	-.1346E-01	.4548E+00	-.2673E+03	.2701E+04
Stress	54	.2942E+04	-.2994E+04	.1497E+04			
Stress	49	-.2617E+02	-.2321E+03	-.1346E-01	.4548E+00	-.2669E+03	-.1945E+04
Stress	49	.2186E+04	-.2239E+04	.1119E+04			
BEAM NO. 44							
GLoads	40	-.7599E-02	-.1636E+04	-.6394E+03	-.5591E+04	-.3200E+03	.1825E+01
GLoads	55	.7599E-02	.1639E+04	.6394E+03	-.9578E+03	.3200E+03	-.1825E+01
LLoads	40	.6394E+03	-.1636E+04	-.7599E-02	-.1825E+01	-.3200E+03	-.5591E+04
LLoads	55	-.6394E+03	.1639E+04	.7599E-02	.1825E+01	.3200E+03	-.9578E+03
Stress	40	-.2469E+03	-.6316E+03	-.2934E-02	.9102E+00	.1365E+03	.3631E+04
Stress	40	.3520E+04	-.4014E+04	.2007E+04			
Stress	55	-.2469E+03	-.6327E+03	-.2934E-02	.9102E+00	.1365E+03	-.6220E+03
Stress	55	.5116E+03	-.1005E+04	.5027E+03			
BEAM NO. 45							
GLoads	55	-.7599E-02	.1246E+02	-.6394E+03	.9578E+03	-.3200E+03	.1825E+01
GLoads	56	.7599E-02	.1246E+02	.6394E+03	-.9577E+03	.3203E+03	-.1825E+01
LLoads	55	.6394E+03	.1246E+02	-.7599E-02	-.1825E+01	-.3200E+03	.9578E+03
LLoads	56	-.6394E+03	.1246E+02	.7599E-02	.1825E+01	.3203E+03	-.9577E+03
Stress	55	-.2469E+03	.4813E+01	-.2934E-02	.9102E+00	.1365E+03	-.6220E+03
Stress	55	.5116E+03	-.1005E+04	.5027E+03			
Stress	56	-.2469E+03	-.4809E+01	-.2934E-02	.9102E+00	.1366E+03	-.6219E+03
Stress	56	.5116E+03	-.1005E+04	.5027E+03			
BEAM NO. 46							
GLoads	56	-.7599E-02	.1639E+04	-.6394E+03	.9577E+03	-.3203E+03	.1825E+01
GLoads	47	.7599E-02	-.1636E+04	.6394E+03	.5591E+04	.3203E+03	-.1825E+01
LLoads	56	.6394E+03	.1639E+04	-.7599E-02	-.1825E+01	-.3203E+03	.9577E+03
LLoads	47	-.6394E+03	-.1636E+04	.7599E-02	.1825E+01	.3203E+03	.5591E+04
Stress	56	-.2469E+03	.6327E+03	-.2934E-02	.9102E+00	.1366E+03	-.6219E+03
Stress	56	.5116E+03	-.1005E+04	.5027E+03			
Stress	47	-.2469E+03	.6315E+03	-.2934E-02	.9102E+00	.1366E+03	.3631E+04
Stress	47	.3520E+04	-.4014E+04	.2007E+04			
BEAM NO. 47							
GLoads	37	.1019E+00	.1133E+02	.1075E+03	.3747E+03	.4883E+03	-.7809E+02
GLoads	35	-.1019E+00	-.5751E+01	-.1075E+03	-.3043E+03	.5053E+03	-.9025E+00
LLoads	37	-.7163E+02	.1133E+02	-.8016E+02	-.2277E+03	.4883E+03	.3077E+03

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	35	.7163E+02	-.5751E+01	.8016E+02	.2277E+03	.5053E+03	-.2019E+03
Stress	37	.4505E+02	.7125E+01	-.5042E+02	.1674E+03	-.6374E+03	-.4017E+03
Stress	37	.1084E+04	-.9941E+03	.5674E+03			
Stress	35	.4505E+02	.3617E+01	-.5042E+02	.1674E+03	.6597E+03	-.2635E+03
Stress	35	.9683E+03	-.8782E+03	.5123E+03			
BEAM NO. 48							
GLoads	35	.1019E+00	.5751E+01	.1075E+03	.3043E+03	-.5053E+03	.9025E+00
GLoads	36	-.1019E+00	.5723E+01	-.1075E+03	-.3039E+03	.5027E+03	-.9025E+00
LLoads	35	-.1075E+03	.5751E+01	.1019E+00	-.9025E+00	-.5053E+03	.3043E+03
LLoads	36	.1075E+03	.5723E+01	-.1019E+00	.9025E+00	.5027E+03	-.3039E+03
Stress	35	.6761E+02	.3617E+01	.6407E-01	.6636E+00	.6597E+03	-.3972E+03
Stress	35	.1125E+04	-.9893E+03	.5623E+03			
Stress	36	.6761E+02	-.3599E+01	.6407E-01	.6636E+00	.6563E+03	-.3968E+03
Stress	36	.1121E+04	-.9855E+03	.5604E+03			
BEAM NO. 49							
GLoads	36	.1019E+00	-.5723E+01	.1075E+03	.3039E+03	-.5027E+03	.9025E+00
GLoads	43	-.1019E+00	.1130E+02	-.1075E+03	-.3742E+03	-.4925E+03	-.7963E+02
LLoads	36	-.7148E+02	-.5723E+01	.8030E+02	.2262E+03	-.5027E+03	.2030E+03
LLoads	43	.7148E+02	.1130E+02	-.8030E+02	-.2262E+03	-.4925E+03	-.3085E+03
Stress	36	.4496E+02	-.3599E+01	.5050E+02	-.1663E+03	.6563E+03	-.2650E+03
Stress	36	.9662E+03	-.8763E+03	.5110E+03			
Stress	43	.4496E+02	-.7107E+01	.5050E+02	-.1663E+03	-.6430E+03	-.4027E+03
Stress	43	.1091E+04	-.1001E+04	.5701E+03			
BEAM NO. 50							
GLoads	1	.4145E+02	-.1574E+03	.9100E+02	.1740E+03	.9813E+02	.9024E+03
GLoads	37	-.4145E+02	.1576E+03	-.9100E+02	-.4891E+03	-.1810E+03	-.9024E+03
LLoads	1	-.9100E+02	-.1574E+03	.4145E+02	-.9024E+03	.9813E+02	.1740E+03
LLoads	37	.9100E+02	.1576E+03	-.4145E+02	.9024E+03	-.1810E+03	-.4891E+03
Stress	1	.9100E+00	-.1574E+01	.4145E+00	.9024E+00	-.9813E-01	-.1740E+00
Stress	1	.1182E+01	.6378E+00	.1079E+01			
Stress	37	.9100E+00	-.1576E+01	.4145E+00	.9024E+00	-.1810E+00	-.4891E+00
Stress	37	.1580E+01	.2399E+00	.1199E+01			
BEAM NO. 51							
GLoads	3	-.2496E+03	.2453E+02	-.1035E+03	.5051E+04	.2702E+03	.5871E+04
GLoads	38	.2496E+03	-.2433E+02	.1035E+03	-.5003E+04	.2289E+03	-.5871E+04
LLoads	3	.1035E+03	.2453E+02	-.2496E+03	-.5871E+04	.2702E+03	.5051E+04
LLoads	38	-.1035E+03	-.2433E+02	.2496E+03	.5871E+04	.2289E+03	-.5003E+04
Stress	3	-.1035E+01	.2453E+00	-.2496E+01	.5871E+01	-.2702E+00	-.5051E+01
Stress	3	.4287E+01	-.6356E+01	.6676E+01			

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	38	-.1035E+01	.2433E+00	-.2496E+01	.5871E+01	.2289E+00	-.5003E+01
Stress	38	.4197E+01	-.6266E+01	.6655E+01			
BEAM NO. 52							
GLoads	6	-.2081E+03	-.7009E+02	.1289E+02	.3571E+03	-.3422E+03	.1748E+04
GLoads	39	.2081E+03	.7029E+02	-.1289E+02	-.2168E+03	-.7404E+02	-.1748E+04
LLoads	6	.1289E+02	-.7009E+02	.2081E+03	.1748E+04	-.3422E+03	-.3571E+03
LLoads	39	-.1289E+02	.7029E+02	-.2081E+03	-.1748E+04	-.7404E+02	.2168E+03
Stress	6	-.1289E+00	-.7009E+00	.2081E+01	-.1748E+01	.3422E+00	.3571E+00
Stress	6	.5705E+00	-.8282E+00	.1796E+01			
Stress	39	-.1289E+00	-.7029E+00	.2081E+01	-.1748E+01	-.7404E-01	.2168E+00
Stress	39	.1619E+00	-.4197E+00	.1760E+01			
BEAM NO. 53							
GLoads	18	.4094E+02	-.1568E+03	-.9092E+02	-.1728E+03	-.1017E+03	.8997E+03
GLoads	43	-.4094E+02	.1570E+03	.9092E+02	.4866E+03	.1836E+03	-.8997E+03
LLoads	18	-.9092E+02	-.1568E+03	-.4094E+02	.8997E+03	-.1017E+03	.1728E+03
LLoads	43	.9092E+02	.1570E+03	.4094E+02	-.8997E+03	.1836E+03	-.4866E+03
Stress	18	.9092E+00	-.1568E+01	-.4094E+00	-.8997E+00	.1017E+00	-.1728E+00
Stress	18	.1184E+01	.6347E+00	.1077E+01			
Stress	43	.9092E+00	-.1570E+01	-.4094E+00	-.8997E+00	.1836E+00	-.4866E+00
Stress	43	.1579E+01	.2390E+00	.1197E+01			
BEAM NO. 54							
GLoads	20	-.2489E+03	.2408E+02	.1034E+03	-.5048E+04	-.2666E+03	.5870E+04
GLoads	44	.2489E+03	-.2388E+02	-.1034E+03	.5000E+04	-.2312E+03	-.5870E+04
LLoads	20	.1034E+03	.2408E+02	.2489E+03	.5870E+04	-.2666E+03	.5048E+04
LLoads	44	-.1034E+03	-.2388E+02	-.2489E+03	-.5870E+04	-.2312E+03	-.5000E+04
Stress	20	-.1034E+01	.2408E+00	.2489E+01	-.5870E+01	.2666E+00	-.5048E+01
Stress	20	.4281E+01	-.6349E+01	.6674E+01			
Stress	44	-.1034E+01	.2388E+00	.2489E+01	-.5870E+01	-.2312E+00	-.5000E+01
Stress	44	.4197E+01	-.6266E+01	.6654E+01			
BEAM NO. 55							
GLoads	23	-.2080E+03	-.6992E+02	-.1287E+02	-.3564E+03	.3415E+03	.1748E+04
GLoads	48	.2080E+03	.7012E+02	.1287E+02	.2163E+03	.7439E+02	-.1748E+04
LLoads	23	.1287E+02	-.6992E+02	-.2080E+03	-.1748E+04	.3415E+03	-.3564E+03
LLoads	48	-.1287E+02	.7012E+02	.2080E+03	.1748E+04	.7439E+02	.2163E+03
Stress	23	-.1287E+00	-.6992E+00	-.2080E+01	.1748E+01	-.3415E+00	.3564E+00
Stress	23	.5692E+00	-.8266E+00	.1796E+01			
Stress	48	-.1287E+00	-.7012E+00	-.2080E+01	.1748E+01	.7439E-01	.2163E+00
Stress	48	.1621E+00	-.4194E+00	.1760E+01			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 56							
GLoads	38	-.4698E-01	.1150E+04	-.1997E+03	.6678E+04	-.2491E+03	.7884E+00
GLoads	50	.4698E-01	-.1150E+04	.1997E+03	-.7078E+04	.2491E+03	-.6944E+00
LLoads	38	.1150E+04	-.1997E+03	-.4698E-01	-.2491E+03	.7884E+00	.6678E+04
LLoads	50	-.1150E+04	.1997E+03	.4698E-01	.2491E+03	-.6944E+00	-.7078E+04
Stress	38	-.1150E+02	-.1997E+01	-.4698E-03	.2491E+00	-.7884E-03	-.6678E+01
Stress	38	-.4823E+01	-.1818E+02	.9094E+01			
Stress	50	-.1150E+02	-.1997E+01	-.4698E-03	.2491E+00	-.6944E-03	-.7078E+01
Stress	50	-.4422E+01	-.1858E+02	.9293E+01			
BEAM NO. 57							
GLoads	5	-.7598E-02	-.1636E+04	-.6394E+03	-.4312E+04	-.3200E+03	.1810E+01
GLoads	40	.7598E-02	.1636E+04	.6394E+03	.5591E+04	.3200E+03	-.1825E+01
LLoads	5	.1636E+04	-.6394E+03	.7598E-02	.3200E+03	.1810E+01	.4312E+04
LLoads	40	-.1636E+04	.6394E+03	-.7598E-02	-.3200E+03	-.1825E+01	-.5591E+04
Stress	5	-.1636E+02	-.6394E+01	.7598E-04	-.3200E+00	-.1810E-02	-.4312E+01
Stress	5	-.1204E+02	-.2067E+02	.1034E+02			
Stress	40	-.1636E+02	-.6394E+01	.7598E-04	-.3200E+00	-.1825E-02	-.5591E+01
Stress	40	-.1076E+02	-.2195E+02	.1098E+02			
BEAM NO. 58							
GLoads	5	-.2590E-01	.9651E+01	.7478E+03	.1699E+04	-.5180E+02	.6708E+00
GLoads	41	.2590E-01	-.9451E+01	-.7478E+03	-.2034E+03	.5180E+02	-.6190E+00
LLoads	5	.9651E+01	.7478E+03	-.2590E-01	-.5180E+02	.6708E+00	.1699E+04
LLoads	41	-.9451E+01	-.7478E+03	.2590E-01	.5180E+02	-.6190E+00	-.2034E+03
Stress	5	-.9651E-01	.7478E+01	-.2590E-03	.5180E-01	-.6708E-03	-.1699E+01
Stress	5	.1603E+01	-.1796E+01	.8996E+00			
Stress	41	-.9451E-01	.7478E+01	-.2590E-03	.5180E-01	-.6190E-03	-.2034E+00
Stress	41	.1095E+00	-.2985E+00	.1580E+00			
BEAM NO. 59							
GLoads	7	-.2140E-01	.3691E+03	-.4161E+02	.1405E+04	.2054E+03	.6613E+00
GLoads	42	.2140E-01	-.3689E+03	.4161E+02	-.1488E+04	-.2054E+03	-.6185E+00
LLoads	7	.3691E+03	-.4161E+02	-.2140E-01	.2054E+03	.6613E+00	.1405E+04
LLoads	42	-.3689E+03	.4161E+02	.2140E-01	-.2054E+03	-.6185E+00	-.1488E+04
Stress	7	-.3691E+01	-.4161E+00	-.2140E-03	-.2054E+00	-.6613E-03	-.1405E+01
Stress	7	-.2286E+01	-.5096E+01	.2556E+01			
Stress	42	-.3689E+01	-.4161E+00	-.2140E-03	-.2054E+00	-.6185E-03	-.1488E+01
Stress	42	-.2201E+01	-.5177E+01	.2597E+01			
BEAM NO. 60							
GLoads	44	.4698E-01	.1150E+04	.1997E+03	-.6676E+04	.2510E+03	-.7884E+00

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

GLoads	45	-.4698E-01	-.1150E+04	-.1997E+03	.7075E+04	-.2510E+03	.6944E+00
LLoads	44	.1150E+04	.1997E+03	.4698E-01	.2510E+03	-.7884E+00	-.6676E+04
LLoads	45	-.1150E+04	-.1997E+03	-.4698E-01	-.2510E+03	.6944E+00	.7075E+04
Stress	44	-.1150E+02	.1997E+01	.4698E-03	-.2510E+00	.7884E-03	.6676E+01
Stress	44	-.4824E+01	-.1818E+02	.9092E+01			
Stress	45	-.1150E+02	.1997E+01	.4698E-03	-.2510E+00	.6944E-03	.7075E+01
Stress	45	-.4423E+01	-.1857E+02	.9291E+01			
BEAM NO. 61							
GLoads	22	.2589E-01	.9648E+01	-.7478E+03	-.1699E+04	.5289E+02	-.6708E+00
GLoads	46	-.2589E-01	-.9448E+01	.7478E+03	.2033E+03	-.5289E+02	.6190E+00
LLoads	22	.9648E+01	-.7478E+03	.2589E-01	.5289E+02	-.6708E+00	-.1699E+04
LLoads	46	-.9448E+01	.7478E+03	-.2589E-01	-.5289E+02	.6190E+00	.2033E+03
Stress	22	-.9648E-01	-.7478E+01	.2589E-03	-.5289E-01	.6708E-03	.1699E+01
Stress	22	.1603E+01	-.1796E+01	.8996E+00			
Stress	46	-.9448E-01	-.7478E+01	.2589E-03	-.5289E-01	.6190E-03	.2033E+00
Stress	46	.1095E+00	-.2984E+00	.1583E+00			
BEAM NO. 62							
GLoads	22	.7599E-02	-.1636E+04	.6394E+03	.4312E+04	.3203E+03	-.1810E+01
GLoads	47	-.7599E-02	.1636E+04	-.6394E+03	-.5591E+04	-.3203E+03	.1825E+01
LLoads	22	.1636E+04	.6394E+03	-.7599E-02	-.3203E+03	-.1810E+01	-.4312E+04
LLoads	47	-.1636E+04	-.6394E+03	.7599E-02	.3203E+03	.1825E+01	.5591E+04
Stress	22	-.1636E+02	.6394E+01	-.7599E-04	.3203E+00	.1810E-02	.4312E+01
Stress	22	-.1204E+02	-.2067E+02	.1034E+02			
Stress	47	-.1636E+02	.6394E+01	-.7599E-04	.3203E+00	.1825E-02	.5591E+01
Stress	47	-.1076E+02	-.2195E+02	.1098E+02			
BEAM NO. 63							
GLoads	24	.2140E-01	.3692E+03	.4161E+02	-.1407E+04	-.2045E+03	-.6613E+00
GLoads	49	-.2140E-01	-.3690E+03	-.4161E+02	.1490E+04	.2045E+03	.6185E+00
LLoads	24	.3692E+03	.4161E+02	.2140E-01	-.2045E+03	-.6613E+00	-.1407E+04
LLoads	49	-.3690E+03	-.4161E+02	-.2140E-01	.2045E+03	.6185E+00	.1490E+04
Stress	24	-.3692E+01	.4161E+00	.2140E-03	.2045E+00	.6613E-03	.1407E+01
Stress	24	-.2285E+01	-.5100E+01	.2558E+01			
Stress	49	-.3690E+01	.4161E+00	.2140E-03	.2045E+00	.6185E-03	.1490E+01
Stress	49	-.2199E+01	-.5181E+01	.2599E+01			
BEAM NO. 64							
GLoads	57	.7404E+02	-.3032E+03	.1378E+02	-.2988E+03	-.1385E+02	.1643E+01
GLoads	81	-.7404E+02	.3034E+03	-.1378E+02	.3264E+03	.1385E+02	-.1497E+03
LLoads	57	-.3032E+03	.1378E+02	.7404E+02	-.1385E+02	.1643E+01	-.2988E+03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	81	.3034E+03	-.1378E+02	-.7404E+02	.1385E+02	-.1497E+03	.3264E+03
Stress	57	.3032E+01	.1378E+00	.7404E+00	.1385E-01	-.1643E-02	.2988E+00
Stress	57	.3332E+01	.2731E+01	.1666E+01			
Stress	81	.3034E+01	.1378E+00	.7404E+00	.1385E-01	-.1497E+00	.3264E+00
Stress	81	.3510E+01	.2557E+01	.1755E+01			
BEAM NO. 65							
GLoads	58	-.2506E-05	.1875E+02	-.2537E+02	-.1090E+03	.3252E-05	.5042E+04
GLoads	59	.2506E-05	-.1762E+02	.2537E+02	.8046E+02	-.3252E-05	-.5042E+04
LLoads	58	.1875E+02	-.2537E+02	-.2506E-05	.3252E-05	.5042E+04	-.1090E+03
LLoads	59	-.1762E+02	.2537E+02	.2506E-05	-.3252E-05	-.5042E+04	.8046E+02
Stress	58	-.5310E+01	-.7186E+01	-.7099E-06	-.6505E-04	-.8088E+03	.1043E+03
Stress	58	.9078E+03	-.9185E+03	.4592E+03			
Stress	59	-.4992E+01	-.7186E+01	-.7099E-06	-.6505E-04	-.8088E+03	.7702E+02
Stress	59	.8808E+03	-.8908E+03	.4454E+03			
BEAM NO. 66							
GLoads	59	-.2517E-05	.1762E+02	-.4641E+01	-.8046E+02	.3252E-05	.5042E+04
GLoads	60	.2517E-05	-.1425E+02	.4641E+01	.6480E+02	-.3252E-05	-.5042E+04
LLoads	59	.1762E+02	-.4641E+01	-.2517E-05	.3252E-05	.5042E+04	-.8046E+02
LLoads	60	-.1425E+02	.4641E+01	.2517E-05	-.3252E-05	-.5042E+04	.6480E+02
Stress	59	-.4992E+01	-.1315E+01	-.7131E-06	-.6505E-04	-.8088E+03	.7702E+02
Stress	59	.8808E+03	-.8908E+03	.4454E+03			
Stress	60	-.4037E+01	-.1315E+01	-.7131E-06	-.6505E-04	-.8088E+03	.6202E+02
Stress	60	.8668E+03	-.8749E+03	.4374E+03			
BEAM NO. 67							
GLoads	60	-.3601E+03	.1412E+02	-.4641E+01	-.6488E+02	.4754E+03	.5042E+04
GLoads	61	.3601E+03	-.1320E+00	.4641E+01	-.8712E-01	-.4754E+03	.9352E-10
LLoads	60	.1412E+02	-.4641E+01	-.3601E+03	.4754E+03	.5042E+04	-.6488E+02
LLoads	61	-.1320E+00	.4641E+01	.3601E+03	-.4754E+03	.9352E-10	-.8712E-01
Stress	60	-.3999E+01	-.1315E+01	-.1020E+03	-.9507E+04	-.8088E+03	.6211E+02
Stress	60	.8669E+03	-.8749E+03	.9517E+04			
Stress	61	-.3739E-01	-.1315E+01	-.1020E+03	-.9507E+04	.1500E-10	-.8339E-01
Stress	61	.4600E-01	-.1208E+00	.9507E+04			
BEAM NO. 68							
GLoads	63	.7379E+02	-.3019E+03	-.1383E+02	.2965E+03	.1381E+02	-.1643E+01
GLoads	82	-.7379E+02	.3021E+03	.1383E+02	-.3241E+03	-.1381E+02	-.1459E+03
LLoads	63	-.3019E+03	-.1383E+02	.7379E+02	.1381E+02	-.1643E+01	.2965E+03
LLoads	82	.3021E+03	.1383E+02	-.7379E+02	-.1381E+02	-.1459E+03	-.3241E+03
Stress	63	.3019E+01	-.1383E+00	.7379E+00	-.1381E-01	.1643E-02	-.2965E+00
Stress	63	.3317E+01	.2721E+01	.1659E+01			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	82	.3021E+01	-.1383E+00	.7379E+00	-.1381E-01	-.1459E+00	-.3241E+00
Stress	82	.3491E+01	.2551E+01	.1745E+01			
BEAM NO. 69							
GLoads	64	-.1108E-05	.1875E+02	.2537E+02	.1097E+03	-.1448E-05	.5020E+04
GLoads	65	.1108E-05	-.1762E+02	-.2537E+02	-.8114E+02	.1448E-05	-.5020E+04
LLoads	64	.1875E+02	.2537E+02	-.1108E-05	-.1448E-05	.5020E+04	.1097E+03
LLoads	65	-.1762E+02	-.2537E+02	.1108E-05	.1448E-05	-.5020E+04	-.8114E+02
Stress	64	-.5311E+01	.7186E+01	-.3140E-06	.2896E-04	-.8054E+03	-.1050E+03
Stress	64	.9050E+03	-.9157E+03	.4578E+03			
Stress	65	-.4992E+01	.7186E+01	-.3140E-06	.2896E-04	-.8054E+03	-.7767E+02
Stress	65	.8780E+03	-.8880E+03	.4440E+03			
BEAM NO. 70							
GLoads	65	-.1091E-05	.1762E+02	.4680E+01	.8114E+02	-.1448E-05	.5020E+04
GLoads	66	.1091E-05	-.1425E+02	-.4680E+01	-.6535E+02	.1448E-05	-.5020E+04
LLoads	65	.1762E+02	.4680E+01	-.1091E-05	-.1448E-05	.5020E+04	.8114E+02
LLoads	66	-.1425E+02	-.4680E+01	.1091E-05	.1448E-05	-.5020E+04	-.6535E+02
Stress	65	-.4992E+01	.1326E+01	-.3090E-06	.2896E-04	-.8054E+03	-.7767E+02
Stress	65	.8780E+03	-.8880E+03	.4440E+03			
Stress	66	-.4037E+01	.1326E+01	-.3090E-06	.2896E-04	-.8054E+03	-.6255E+02
Stress	66	.8639E+03	-.8719E+03	.4360E+03			
BEAM NO. 71							
GLoads	66	-.3586E+03	.1412E+02	.4680E+01	.6544E+02	-.4769E+03	.5020E+04
GLoads	67	.3586E+03	-.1330E+00	-.4680E+01	.8844E-01	.4769E+03	-.3639E-10
LLoads	66	.1412E+02	.4680E+01	-.3586E+03	-.4769E+03	.5020E+04	.6544E+02
LLoads	67	-.1330E+00	-.4680E+01	.3586E+03	.4769E+03	-.3639E-10	.8844E-01
Stress	66	-.4000E+01	.1326E+01	-.1016E+03	.9538E+04	-.8054E+03	-.6264E+02
Stress	66	.8640E+03	-.8720E+03	.9548E+04			
Stress	67	-.3768E-01	.1326E+01	-.1016E+03	.9538E+04	-.5839E-11	.8466E-01
Stress	67	.4698E-01	-.1223E+00	.9538E+04			
BEAM NO. 72							
GLoads	57	-.7404E+02	.3032E+03	-.1378E+02	.2988E+03	.1385E+02	-.1643E+01
GLoads	69	.7404E+02	-.2936E+03	.1378E+02	.1885E+04	.5281E+03	.1643E+01
LLoads	57	.1378E+02	.3032E+03	-.7404E+02	.1643E+01	.1385E+02	.2988E+03
LLoads	69	-.1378E+02	-.2936E+03	.7404E+02	-.1643E+01	.5281E+03	.1885E+04
Stress	57	-.3002E+01	.6605E+02	-.1613E+02	-.1972E+00	-.1880E+01	-.5108E+02
Stress	57	.4996E+02	-.5597E+02	.2798E+02			
Stress	69	-.3002E+01	.6397E+02	-.1613E+02	-.1972E+00	.7169E+02	.3223E+03
Stress	69	.3910E+03	-.3970E+03	.1985E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 73							
GLoads	69	-.7404E+02	.2936E+03	-.1378E+02	-.1885E+04	-.5281E+03	-.1643E+01
GLoads	70	.7404E+02	-.2859E+03	.1378E+02	.3624E+04	.9723E+03	.1643E+01
LLoads	69	.1378E+02	.2936E+03	-.7404E+02	.1643E+01	-.5281E+03	-.1885E+04
LLoads	70	-.1378E+02	-.2859E+03	.7404E+02	-.1643E+01	.9723E+03	.3624E+04
Stress	69	-.3002E+01	.6397E+02	.1613E+02	-.1972E+00	.7169E+02	.3223E+03
Stress	69	.3910E+03	-.3970E+03	.1985E+03			
Stress	70	-.3002E+01	.6228E+02	-.1613E+02	-.1972E+00	.1320E+03	.6195E+03
Stress	70	.7485E+03	-.7545E+03	.3772E+03			
BEAM NO. 74							
GLoads	70	.1128E+00	.1375E+02	.0000E+00	-.3624E+04	-.9723E+03	-.1643E+01
GLoads	71	-.1128E+00	.1482E+02	.0000E+00	.3612E+04	.9699E+03	.1643E+01
LLoads	70	.0000E+00	.1375E+02	.1128E+00	.1643E+01	-.9723E+03	-.3624E+04
LLoads	71	.0000E+00	.1482E+02	-.1128E+00	-.1643E+01	.9699E+03	.3612E+04
Stress	70	.0000E+00	.2997E+01	.2457E-01	-.1972E+00	.1320E+03	.6195E+03
Stress	70	.7515E+03	-.7515E+03	.3757E+03			
Stress	71	.0000E+00	-.3229E+01	.2457E-01	-.1972E+00	.1317E+03	.6175E+03
Stress	71	.7491E+03	-.7491E+03	.3746E+03			
BEAM NO. 75							
GLoads	71	.7379E+02	-.2846E+03	-.1383E+02	-.3612E+04	-.9699E+03	-.1643E+01
GLoads	72	-.7379E+02	.2924E+03	.1383E+02	.1881E+04	.5271E+03	.1643E+01
LLoads	71	.1383E+02	-.2846E+03	.7379E+02	.1643E+01	-.9699E+03	-.3612E+04
LLoads	72	-.1383E+02	.2924E+03	-.7379E+02	-.1643E+01	.5271E+03	.1881E+04
Stress	71	-.3014E+01	-.6200E+02	.1608E+02	-.1972E+00	.1317E+03	.6175E+03
Stress	71	.7461E+03	-.7521E+03	.3761E+03			
Stress	72	-.3014E+01	-.6369E+02	.1608E+02	-.1972E+00	.7155E+02	.3216E+03
Stress	72	.3901E+03	-.3962E+03	.1981E+03			
BEAM NO. 76							
GLoads	72	.7379E+02	-.2924E+03	-.1383E+02	-.1881E+04	-.5271E+03	-.1643E+01
GLoads	63	-.7379E+02	.3019E+03	.1383E+02	-.2965E+03	-.1381E+02	.1643E+01
LLoads	72	.1383E+02	-.2924E+03	.7379E+02	.1643E+01	-.5271E+03	-.1881E+04
LLoads	63	-.1383E+02	.3019E+03	-.7379E+02	-.1643E+01	-.1381E+02	-.2965E+03
Stress	72	-.3014E+01	-.6369E+02	.1608E+02	-.1972E+00	.7155E+02	.3216E+03
Stress	72	.3901E+03	-.3962E+03	.1981E+03			
Stress	63	-.3014E+01	-.6577E+02	.1608E+02	-.1972E+00	-.1874E+01	-.5068E+02
Stress	63	.4954E+02	-.5557E+02	.2778E+02			
BEAM NO. 77							
GLoads	62	.7404E+02	-.3680E+03	.3915E+02	-.8444E+03	.1427E+03	-.5214E+02

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	75	-.7404E+02	.3723E+03	-.3915E+02	-.1865E+04	-.6847E+03	.5214E+02
LLoads	62	-.3915E+02	-.3680E+03	.7404E+02	.5214E+02	.1427E+03	-.8444E+03
LLoads	75	.3915E+02	.3723E+03	-.7404E+02	-.5214E+02	-.6847E+03	-.1865E+04
Stress	62	.1873E+02	-.1761E+03	.3542E+02	-.2973E+02	-.1241E+03	.5732E+03
Stress	62	.7160E+03	-.6785E+03	.3592E+03			
Stress	75	.1873E+02	-.1781E+03	.3542E+02	-.2973E+02	-.5954E+03	-.1266E+04
Stress	75	.1880E+04	-.1842E+04	.9404E+03			
BEAM NO. 78							
GLoads	75	-.7296E-02	.1017E+02	.6405E+02	.1167E+04	.5075E+03	-.6141E+00
GLoads	78	.7296E-02	.9942E+01	-.6405E+02	-.1163E+04	-.5072E+03	.6141E+00
LLoads	75	-.6405E+02	.1017E+02	-.7296E-02	.6141E+00	.5075E+03	.1167E+04
LLoads	78	.6405E+02	.9942E+01	.7296E-02	-.6141E+00	-.5072E+03	-.1163E+04
Stress	75	.3065E+02	.4865E+01	-.3491E-02	-.3502E+00	-.4413E+03	-.7922E+03
Stress	75	.1264E+04	-.1203E+04	.6321E+03			
Stress	78	.3065E+02	-.4757E+01	-.3491E-02	-.3502E+00	-.4411E+03	-.7896E+03
Stress	78	.1261E+04	-.1200E+04	.6306E+03			
BEAM NO. 79							
GLoads	78	-.7379E+02	.3710E+03	.3920E+02	.1860E+04	.6839E+03	.5062E+02
GLoads	68	.7379E+02	-.3667E+03	-.3920E+02	.8439E+03	-.1430E+03	-.5062E+02
LLoads	78	-.3920E+02	.3710E+03	-.7379E+02	-.5062E+02	.6839E+03	.1860E+04
LLoads	68	.3920E+02	-.3667E+03	.7379E+02	.5062E+02	-.1430E+03	.8439E+03
Stress	78	.1876E+02	.1775E+03	-.3531E+02	.2887E+02	-.5947E+03	-.1262E+04
Stress	78	.1876E+04	-.1838E+04	.9383E+03			
Stress	68	.1876E+02	.1754E+03	-.3531E+02	.2887E+02	-.1243E+03	.5728E+03
Stress	68	.7159E+03	-.6784E+03	.3591E+03			
BEAM NO. 80							
GLoads	75	.7405E+02	-.3824E+03	-.2490E+02	.6977E+03	.1772E+03	-.5152E+02
GLoads	76	-.7405E+02	.4060E+03	.2490E+02	.5849E+03	.4693E+02	.3170E+03
LLoads	75	.3895E+03	.7102E+01	-.2490E+02	-.5446E+02	.7178E+03	-.5152E+02
LLoads	76	-.4127E+03	-.3052E+01	.2490E+02	.5446E+02	.5842E+03	.3170E+03
Stress	75	-.2450E+03	.4467E+01	-.1566E+02	.4005E+02	-.9370E+03	.6726E+02
Stress	75	.7593E+03	-.1249E+04	.6259E+03			
Stress	76	-.2595E+03	.1920E+01	-.1566E+02	.4005E+02	.7627E+03	.4138E+03
Stress	76	.9170E+03	-.1436E+04	.7191E+03			
BEAM NO. 81							
GLoads	76	.7405E+02	-.4060E+03	-.2490E+02	-.5849E+03	-.4693E+02	-.3170E+03
GLoads	77	-.7405E+02	.4087E+03	.2490E+02	-.1859E+04	-.3973E+03	.3170E+03
LLoads	76	.2490E+02	-.4127E+03	.3052E+01	.3170E+03	.5446E+02	-.5842E+03

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	77	-.2490E+02	.4153E+03	-.2588E+01	-.3170E+03	-.7138E+02	-.1900E+04
Stress	76	-.1566E+02	-.2595E+03	.1920E+01	-.2331E+03	-.7110E+02	.7627E+03
Stress	76	.8181E+03	-.8495E+03	.4845E+03			
Stress	77	-.1566E+02	-.2612E+03	.1627E+01	-.2331E+03	-.9319E+02	-.2480E+04
Stress	77	.2558E+04	-.2589E+04	.1315E+04			
BEAM NO. 82							
GLoads	78	.7379E+02	-.3810E+03	.2485E+02	-.6964E+03	-.1767E+03	-.5124E+02
GLoads	79	-.7379E+02	.4045E+03	-.2485E+02	-.5834E+03	-.4700E+02	.3167E+03
LLoads	78	.3880E+03	.7103E+01	.2485E+02	.5414E+02	-.7165E+03	-.5124E+02
LLoads	79	-.4111E+03	-.3053E+01	-.2485E+02	-.5414E+02	-.5828E+03	.3167E+03
Stress	78	-.2440E+03	.4467E+01	.1563E+02	-.3981E+02	.9353E+03	.6689E+02
Stress	78	.7582E+03	-.1246E+04	.6244E+03			
Stress	79	-.2586E+03	.1920E+01	.1563E+02	-.3981E+02	-.7608E+03	.4135E+03
Stress	79	.9157E+03	-.1433E+04	.7175E+03			
BEAM NO. 83							
GLoads	79	.7379E+02	-.4045E+03	.2485E+02	.5834E+03	.4700E+02	-.3167E+03
GLoads	80	-.7379E+02	.4072E+03	-.2485E+02	.1852E+04	.3957E+03	.3167E+03
LLoads	79	.2485E+02	-.4111E+03	-.3053E+01	-.3167E+03	-.5414E+02	-.5828E+03
LLoads	80	-.2485E+02	.4138E+03	.2588E+01	.3167E+03	.7106E+02	-.1892E+04
Stress	79	-.1563E+02	-.2586E+03	-.1920E+01	.2329E+03	.7067E+02	.7608E+03
Stress	79	.8158E+03	-.8471E+03	.4834E+03			
Stress	80	-.1563E+02	-.2603E+03	-.1628E+01	.2329E+03	.9277E+02	-.2470E+04
Stress	80	.2547E+04	-.2578E+04	.1310E+04			
BEAM NO. 84							
GLoads	58	.7404E+02	-.3676E+03	.3915E+02	-.8444E+03	-.1385E+02	-.1523E+04
GLoads	62	-.7404E+02	.3680E+03	-.3915E+02	.8444E+03	-.1427E+03	.5214E+02
LLoads	58	.7404E+02	-.3676E+03	.3915E+02	-.8444E+03	-.1385E+02	-.1523E+04
LLoads	62	-.7404E+02	.3680E+03	-.3915E+02	.8444E+03	-.1427E+03	.5214E+02
Stress	58	-.7404E+00	-.3676E+01	.3915E+00	.8444E+00	.1385E-01	.1523E+01
Stress	58	.7966E+00	-.2277E+01	.1418E+01			
Stress	62	-.7404E+00	-.3680E+01	.3915E+00	.8444E+00	-.1427E+00	.5214E-01
Stress	62	-.5455E+00	-.9353E+00	.9653E+00			
BEAM NO. 85							
GLoads	64	.7379E+02	-.3663E+03	-.3920E+02	.8439E+03	.1381E+02	-.1517E+04
GLoads	68	-.7379E+02	.3667E+03	.3920E+02	-.8439E+03	.1430E+03	.5062E+02
LLoads	64	.7379E+02	-.3663E+03	-.3920E+02	.8439E+03	.1381E+02	-.1517E+04
LLoads	68	-.7379E+02	.3667E+03	.3920E+02	-.8439E+03	.1430E+03	.5062E+02
Stress	64	-.7379E+00	-.3663E+01	-.3920E+00	-.8439E+00	-.1381E-01	.1517E+01
Stress	64	.7924E+00	-.2268E+01	.1414E+01			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	68	-.7379E+00	-.3667E+01	-.3920E+00	-.8439E+00	.1430E+00	.5062E-01
Stress	68	-.5443E+00	-.9316E+00	.9639E+00			
BEAM NO. 88							
GLoads	1	-.3601E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	60	.3601E+03	.1320E+00	.0000E+00	.8712E-01	-.4754E+03	.0000E+00
LLoads	1	.0000E+00	.0000E+00	.3601E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	60	.0000E+00	.1320E+00	-.3601E+03	.0000E+00	-.4754E+03	-.8712E-01
Stress	1	.0000E+00	.0000E+00	.3601E+01	.0000E+00	.0000E+00	.0000E+00
Stress	1	.0000E+00	.0000E+00	.0000E+00			
Stress	60	.0000E+00	-.1320E-02	.3601E+01	.0000E+00	-.4754E+00	-.8712E-04
Stress	60	.4754E+00	-.4754E+00	.2377E+00			
BEAM NO. 89							
GLoads	10	.3601E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	61	-.3601E+03	.1320E+00	.0000E+00	.8712E-01	.4754E+03	.0000E+00
LLoads	10	.0000E+00	.0000E+00	-.3601E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	61	.0000E+00	.1320E+00	.3601E+03	.0000E+00	.4754E+03	-.8712E-01
Stress	10	.0000E+00	.0000E+00	-.3601E+01	.0000E+00	.0000E+00	.0000E+00
Stress	10	.0000E+00	.0000E+00	.0000E+00			
Stress	61	.0000E+00	-.1320E-02	-.3601E+01	.0000E+00	.4754E+00	-.8712E-04
Stress	61	.4754E+00	-.4754E+00	.2377E+00			
BEAM NO. 90							
GLoads	18	-.3586E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	66	.3586E+03	.1330E+00	.0000E+00	-.8844E-01	.4769E+03	.0000E+00
LLoads	18	.0000E+00	.0000E+00	-.3586E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	66	.0000E+00	.1330E+00	.3586E+03	.0000E+00	.4769E+03	-.8844E-01
Stress	18	.0000E+00	.0000E+00	-.3586E+01	.0000E+00	.0000E+00	.0000E+00
Stress	18	.0000E+00	.0000E+00	.0000E+00			
Stress	66	.0000E+00	-.1330E-02	-.3586E+01	.0000E+00	.4769E+00	-.8844E-04
Stress	66	.4770E+00	-.4770E+00	.2385E+00			
BEAM NO. 91							
GLoads	27	.3586E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	67	-.3586E+03	.1330E+00	.0000E+00	-.8844E-01	-.4769E+03	.0000E+00
LLoads	27	.0000E+00	.0000E+00	.3586E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	67	.0000E+00	.1330E+00	-.3586E+03	.0000E+00	-.4769E+03	-.8844E-01
Stress	27	.0000E+00	.0000E+00	.3586E+01	.0000E+00	.0000E+00	.0000E+00
Stress	27	.0000E+00	.0000E+00	.0000E+00			
Stress	67	.0000E+00	-.1330E-02	.3586E+01	.0000E+00	-.4769E+00	-.8844E-04
Stress	67	.4770E+00	-.4770E+00	.2385E+00			

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
TRUSS NO. 92							
GLoads	56	.0000E+00	-.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	74	.0000E+00	.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	56	.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	74	-.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	56	-.2104E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	56	-.2104E+04	-.2104E+04	.1052E+04			
Stress	74	-.2104E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	74	-.2104E+04	-.2104E+04	.1052E+04			
TRUSS NO. 93							
GLoads	55	.0000E+00	-.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	73	.0000E+00	.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	55	.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	73	-.1662E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	55	-.2104E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	55	-.2104E+04	-.2104E+04	.1052E+04			
Stress	73	-.2104E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	73	-.2104E+04	-.2104E+04	.1052E+04			
BEAM NO. 94							
GLoads	81	.7404E+02	-.3034E+03	.1378E+02	-.3264E+03	-.1385E+02	.1497E+03
GLoads	58	-.7404E+02	.3488E+03	-.1378E+02	.9534E+03	.1385E+02	-.3518E+04
LLoads	81	-.3034E+03	.1378E+02	.7404E+02	-.1385E+02	.1497E+03	-.3264E+03
LLoads	58	.3488E+03	-.1378E+02	-.7404E+02	.1385E+02	-.3518E+04	.9534E+03
Stress	81	.8594E+02	.3904E+01	.2097E+02	.2771E+03	-.2402E+02	.3124E+03
Stress	81	.4224E+03	-.2505E+03	.3484E+03			
Stress	58	.9881E+02	.3904E+01	.2097E+02	.2771E+03	-.5645E+03	.9126E+03
Stress	58	.1576E+04	-.1378E+04	.8352E+03			
BEAM NO. 95							
GLoads	82	.7379E+02	-.3021E+03	-.1383E+02	.3241E+03	.1381E+02	.1459E+03
GLoads	64	-.7379E+02	.3475E+03	.1383E+02	-.9536E+03	-.1381E+02	-.3504E+04
LLoads	82	-.3021E+03	-.1383E+02	.7379E+02	.1381E+02	.1459E+03	.3241E+03
LLoads	64	.3475E+03	.1383E+02	-.7379E+02	-.1381E+02	-.3504E+04	-.9536E+03
Stress	82	.8557E+02	-.3919E+01	.2090E+02	-.2761E+03	-.2341E+02	-.3103E+03
Stress	82	.4193E+03	-.2481E+03	.3467E+03			
Stress	64	.9845E+02	-.3919E+01	.2090E+02	-.2761E+03	-.5621E+03	-.9128E+03
Stress	64	.1573E+04	-.1376E+04	.8337E+03			
BEAM NO. 96							
GLoads	70	-.2214E-08	.2000E+00	.1273E-08	-.2866E-08	.7532E-12	-.3959E-08

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	83	.2214E-08	-.2776E-16	-.1273E-08	.7863E-09	-.7532E-12	.3258E-08
LLoads	70	-.2000E+00	.1273E-08	.2214E-08	-.7532E-12	-.3959E-08	.2866E-08
LLoads	83	.2776E-16	-.1273E-08	-.2214E-08	.7532E-12	.3258E-08	-.7863E-09
Stress	70	.2000E-02	.1273E-10	.2214E-10	.7532E-15	.3959E-11	-.2866E-11
Stress	70	.2000E-02	.2000E-02	.1000E-02			
Stress	83	.2776E-18	.1273E-10	.2214E-10	.7532E-15	.3258E-11	-.7863E-12
Stress	83	.4044E-11	-.4044E-11	.2022E-11			
BEAM NO. 97							
GLoads	71	-.2468E-08	.2000E+00	.9900E-09	-.3765E-08	.2066E-10	-.8476E-08
GLoads	84	.2468E-08	-.2776E-16	-.9900E-09	.1784E-08	-.2066E-10	.5401E-08
LLoads	71	-.2000E+00	.9900E-09	.2468E-08	-.2066E-10	-.8476E-08	.3765E-08
LLoads	84	.2776E-16	-.9900E-09	-.2468E-08	.2066E-10	.5401E-08	-.1784E-08
Stress	71	.2000E-02	.9900E-11	.2468E-10	.2066E-13	.8476E-11	-.3765E-11
Stress	71	.2000E-02	.2000E-02	.1000E-02			
Stress	84	.2776E-18	.9900E-11	.2468E-10	.2066E-13	.5401E-11	-.1784E-11
Stress	84	.7185E-11	-.7185E-11	.3592E-11			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

MAXIMUM STRESS SUMMARY FOR BEAMS/TRUSSES
WITHIN SPECIFIED RANGE 1- 97

Maximum (absolute) Stress = .9691E+04 at BEAM 37

Beam	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
37	-.1256E+03 Maximum	.7233E+03 Minimum	-.2955E-01 Cmb. Shear	.5106E+00	.3252E+03	-.9240E+04
	.9439E+04	-.9691E+04	.4845E+04			

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SOLVE SPRING LOADS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

SPRING LOADS

Type	Node	Fx	Fy	Fz	Mx	My	Mz
ASPRG NO. 1							
GLoads	10	.0000E+00	.0000E+00	.4641E+01	.0000E+00	.0000E+00	.0000E+00
GLoads	61	.0000E+00	.0000E+00	-.4641E+01	.0000E+00	.0000E+00	.0000E+00
LLoads	10	.4641E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	61	-.4641E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
ASPRG NO. 2							
GLoads	27	.0000E+00	.0000E+00	-.4680E+01	.0000E+00	.0000E+00	.0000E+00
GLoads	67	.0000E+00	.0000E+00	.4680E+01	.0000E+00	.0000E+00	.0000E+00
LLoads	27	.4680E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	67	-.4680E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
ASPRG NO. 3							
GLoads	2	.0000E+00	.0000E+00	.2073E+02	.0000E+00	.0000E+00	.0000E+00
GLoads	59	.0000E+00	.0000E+00	-.2073E+02	.0000E+00	.0000E+00	.0000E+00
LLoads	2	.2073E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	59	-.2073E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
ASPRG NO. 4							
GLoads	19	.0000E+00	.0000E+00	-.2069E+02	.0000E+00	.0000E+00	.0000E+00
GLoads	65	.0000E+00	.0000E+00	.2069E+02	.0000E+00	.0000E+00	.0000E+00
LLoads	19	.2069E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	65	-.2069E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00

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SOLVE REACTIONS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN UP POSITION

REACTIONS

Node	Fx	Fy	Fz	Mx	My	Mz
70	.7415E+02	-.2719E+03	.1378E+02	.0000E+00	.0000E+00	.0000E+00
71	.7368E+02	-.2695E+03	-.1383E+02	.0000E+00	.0000E+00	.0000E+00
73	.0000E+00	.1673E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	.1673E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
77	-.7405E+02	.4087E+03	.2490E+02	-.1859E+04	-.3973E+03	.3170E+03
80	-.7379E+02	.4072E+03	-.2485E+02	.1852E+04	.3957E+03	.3167E+03

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Interactive Microcomputer Analysis & Graphics of Engineering Systems

IMAGES-3D Version 2.0 07/01/90

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=	Celestial Software Inc.	=
=	125 University Ave.	=
=	Berkeley, CA	=
=	94710	=
=		=
=	415-843-0977	=

=====

FILE: TRUCK.DDW

DEAD WEIGHT ONLY ANALYSIS WITH
- 1 FRAME IN DOWN (TRANSPORT) POSITION

- 2 FRAME MEMBER (13) RESTRAINED
TO DRILL RIG IN F_x , F_y & F_z DIRECTIONS
(JTS. 70 & 71)

PREPARED BY L. Hyde

CHECKED BY H.H. Zick

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CHECK GEOMETRY

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

MATERIAL PROPERTIES

Material No	Modulus of Elasticity	Weight Density	Coeff of Thermal Exp.	Poisson's Ratio	Shear Web Modulus
1	3.00000E+07	2.83000E-01	6.33000E-06	3.00E-01	0.00000E+00
2	3.00000E+07	1.00000E-03	6.33000E-06	3.00E-01	0.00000E+00

SPRING CONSTANTS

Spring Const.	Stiffness
1	1.00000E+06

NODE COORDINATES

Node	X-Coord.	Y-Coord.	Z-Coord.
1	0.00000E+00	5.80000E+01	0.00000E+00
2	0.00000E+00	5.46250E+01	0.00000E+00
3	0.00000E+00	1.01000E+02	0.00000E+00
4	0.00000E+00	1.23000E+02	0.00000E+00
5	-9.50000E+00	1.01000E+02	-2.00000E+00
6	-2.28400E+01	1.01000E+02	-2.00000E+00
7	-2.65000E+01	1.01000E+02	-2.00000E+00
8	0.00000E+00	6.25000E+01	0.00000E+00
9	0.00000E+00	6.80000E+01	0.00000E+00
10	0.00000E+00	7.20000E+01	0.00000E+00
11	0.00000E+00	7.90000E+01	0.00000E+00
12	0.00000E+00	8.70000E+01	0.00000E+00
13	0.00000E+00	9.00000E+01	0.00000E+00
14	0.00000E+00	9.55000E+01	0.00000E+00
15	0.00000E+00	1.06500E+02	0.00000E+00
16	0.00000E+00	1.15000E+02	0.00000E+00
17	0.00000E+00	1.17500E+02	0.00000E+00
18	0.00000E+00	5.80000E+01	-4.60000E+01
19	0.00000E+00	5.46250E+01	-4.60000E+01
20	0.00000E+00	1.01000E+02	-4.60000E+01
21	0.00000E+00	1.23000E+02	-4.60000E+01
22	-9.50000E+00	1.01000E+02	-4.40000E+01

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Node	X-Coord.	Y-Coord.	Z-Coord.
23	-2.28400E+01	1.01000E+02	-4.40000E+01
24	-2.65000E+01	1.01000E+02	-4.40000E+01
25	0.00000E+00	6.25000E+01	-4.60000E+01
26	0.00000E+00	6.80000E+01	-4.60000E+01
27	0.00000E+00	7.20000E+01	-4.60000E+01
28	0.00000E+00	7.90000E+01	-4.60000E+01
29	0.00000E+00	8.70000E+01	-4.60000E+01
30	0.00000E+00	9.00000E+01	-4.60000E+01
31	0.00000E+00	9.55000E+01	-4.60000E+01
32	0.00000E+00	1.06500E+02	-4.60000E+01
33	0.00000E+00	1.15000E+02	-4.60000E+01
34	0.00000E+00	1.17500E+02	-4.60000E+01
35	-9.25000E+00	5.80000E+01	-1.02500E+01
36	-9.25000E+00	5.80000E+01	-3.57500E+01
37	0.00000E+00	5.80000E+01	-2.00000E+00
38	0.00000E+00	1.01000E+02	-2.00000E+00
39	-2.28400E+01	1.01000E+02	0.00000E+00
40	-9.50000E+00	9.90000E+01	-2.00000E+00
41	-9.50000E+00	1.03000E+02	-2.00000E+00
42	-2.65000E+01	1.03000E+02	-2.00000E+00
43	0.00000E+00	5.80000E+01	-4.40000E+01
44	0.00000E+00	1.01000E+02	-4.40000E+01
45	0.00000E+00	1.03000E+02	-4.40000E+01
46	-9.50000E+00	1.03000E+02	-4.40000E+01
47	-9.50000E+00	9.90000E+01	-4.40000E+01
48	-2.28400E+01	1.01000E+02	-4.60000E+01
49	-2.65000E+01	1.03000E+02	-4.40000E+01
50	0.00000E+00	1.03000E+02	-2.00000E+00
51	0.00000E+00	1.03000E+02	-1.70000E+01
52	0.00000E+00	1.03000E+02	-2.90000E+01
53	-2.65000E+01	1.03000E+02	-1.70000E+01
54	-2.65000E+01	1.03000E+02	-2.90000E+01
55	-9.50000E+00	9.90000E+01	-6.00000E+00
56	-9.50000E+00	9.90000E+01	-4.00000E+01
57	0.00000E+00	4.90000E+01	1.32000E+00
58	0.00000E+00	9.65000E+01	1.32000E+00
59	0.00000E+00	5.46250E+01	1.32000E+00
60	0.00000E+00	1.01000E+02	1.32000E+00
61	0.00000E+00	1.15000E+02	1.32000E+00
62	4.00000E+00	9.65000E+01	1.32000E+00
63	0.00000E+00	4.90000E+01	-4.73300E+01
64	0.00000E+00	9.65000E+01	-4.73300E+01

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Node	X-Coord.	Y-Coord.	Z-Coord.
65	0.00000E+00	5.46250E+01	-4.73300E+01
66	0.00000E+00	1.01000E+02	-4.73300E+01
67	0.00000E+00	1.15000E+02	-4.73300E+01
68	4.00000E+00	9.65000E+01	-4.73300E+01
69	0.00000E+00	4.90000E+01	-6.00000E+00
70	0.00000E+00	4.90000E+01	-1.20000E+01
71	0.00000E+00	4.90000E+01	-3.40000E+01
72	0.00000E+00	4.90000E+01	-4.00000E+01
73	-9.50000E+00	4.53800E+01	-6.00000E+00
74	-9.50000E+00	4.53800E+01	-4.00000E+01
75	4.00000E+00	9.65000E+01	-6.00000E+00
76	1.30000E+01	4.50000E+01	-6.00000E+00
77	1.30000E+01	4.50000E+01	-1.20000E+01
78	4.00000E+00	9.65000E+01	-4.00000E+01
79	1.30000E+01	4.50000E+01	-4.00000E+01
80	1.30000E+01	4.50000E+01	-3.40000E+01
81	0.00000E+00	5.10000E+01	1.32000E+00
82	0.00000E+00	5.10000E+01	-4.73300E+01
83	0.00000E+00	4.70000E+01	-1.20000E+01
84	0.00000E+00	4.70000E+01	-3.40000E+01
85	-2.75000E+00	4.79510E+01	-6.00000E+00
86	-2.75000E+00	4.79510E+01	-4.00000E+01
87	0.00000E+00	8.70000E+01	1.32000E+00
88	0.00000E+00	8.70000E+01	-4.73300E+01

BEAM PROPERTIES

Multiplier = 1 (For AISC database properties only)

Prop No	X-Section Area	Moment of Inertia		Torsional Const.- J
		Iy	Iz	
1	1.590E+00	7.660E-01	7.660E-01	1.360E+00
2	2.590E+00	4.690E+00	1.540E+00	4.010E+00
3	2.580E+00	7.980E+00	2.650E+00	6.800E+00
4	1.000E+02	1.000E+03	1.000E+03	1.000E+03
5	3.530E+00	1.870E+01	1.870E+00	1.500E-01
6	4.590E+00	2.210E+01	1.170E+01	2.500E+01
7	2.090E+00	1.150E+00	2.210E+00	2.630E+00
8	7.900E-01	1.000E-02	1.000E-02	1.000E-02

Prop No	Max. Fiber Cy	Fiber Dist / Cz	Shear SSFy	Shape / SSFz	Fact Ctors	Shear Stress SSTRFy	Factor SSTRFz

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Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Prop No	Max. Cy	Fiber / Cz	Dist	Shear SSFy	Shape / SSFz	Fact	Ctors	Shear SSTRFy	Stress / SSTRFz	Factor
1	1.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	
2	2.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E+00	1.00E+00	1.00E+00	1.00E+00	
3	2.50E+00	1.25E+00	0.00E+00	0.00E+00	0.00E+00	2.50E+00	1.00E+00	1.00E+00	1.00E+00	
4	1.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	
5	3.00E+00	1.79E+00	0.00E+00	0.00E+00	0.00E+00	3.00E+00	1.00E+00	1.00E+00	1.00E+00	
6	3.00E+00	2.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E+00	1.00E+00	1.00E+00	1.00E+00	
7	1.00E+00	1.50E+00	0.00E+00	0.00E+00	0.00E+00	1.50E+00	1.00E+00	1.00E+00	1.00E+00	
8	1.00E+00	1.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	

BEAM CONNECTIVITY

Beam No	Nodes From/ To	Ref	Prop No	Mat No	pin I / J	Rigid I	End /	Offset J	Length	Beam Type
1	2 1	0	3	1		0.00E+00	0.00E+00	0.34E+01	Beam	
2	1 8	0	3	1		0.00E+00	0.00E+00	0.45E+01	Beam	
3	8 9	0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	
4	9 10	0	3	1		0.00E+00	0.00E+00	0.40E+01	Beam	
5	10 11	0	3	1		0.00E+00	0.00E+00	0.70E+01	Beam	
6	11 12	0	3	1		0.00E+00	0.00E+00	0.80E+01	Beam	
7	12 13	0	3	1		0.00E+00	0.00E+00	0.30E+01	Beam	
8	13 14	0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	
9	14 3	0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	
10	3 15	0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	
11	15 16	0	3	1		0.00E+00	0.00E+00	0.85E+01	Beam	
12	16 17	0	3	1		0.00E+00	0.00E+00	0.25E+01	Beam	
13	17 4	0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	
14	38 5	0	1	1		0.00E+00	0.00E+00	0.95E+01	Beam	
15	5 6	0	1	1		0.00E+00	0.00E+00	0.13E+02	Beam	
16	6 7	0	1	1		0.00E+00	0.00E+00	0.37E+01	Beam	
17	4 39	0	1	1		0.35E+01	0.00E+00	0.32E+02	Beam	
18	37 6	0	1	1		0.20E+01	0.20E+01	0.49E+02	Beam	
19	19 18	0	3	1		0.00E+00	0.00E+00	0.34E+01	Beam	
20	18 25	0	3	1		0.00E+00	0.00E+00	0.45E+01	Beam	
21	25 26	0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	
22	26 27	0	3	1		0.00E+00	0.00E+00	0.40E+01	Beam	
23	27 28	0	3	1		0.00E+00	0.00E+00	0.70E+01	Beam	
24	28 29	0	3	1		0.00E+00	0.00E+00	0.80E+01	Beam	
25	29 30	0	3	1		0.00E+00	0.00E+00	0.30E+01	Beam	
26	30 31	0	3	1		0.00E+00	0.00E+00	0.55E+01	Beam	

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Beam No	Nodes			Prop No	Mat No	pincodes		Rigid End Offset		Length	Beam Type
	From/	To /	Ref			I /	J	I /	J		
27	31	20	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
28	20	32	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
29	32	33	0	3	1			0.00E+00	0.00E+00	0.85E+01	Beam
30	33	34	0	3	1			0.00E+00	0.00E+00	0.25E+01	Beam
31	34	21	0	3	1			0.00E+00	0.00E+00	0.55E+01	Beam
32	44	22	0	1	1			0.00E+00	0.00E+00	0.95E+01	Beam
33	22	23	0	1	1			0.00E+00	0.00E+00	0.13E+02	Beam
34	23	24	0	1	1			0.00E+00	0.00E+00	0.37E+01	Beam
35	21	48	0	1	1			0.35E+01	0.00E+00	0.32E+02	Beam
36	43	23	0	1	1			0.20E+01	0.20E+01	0.49E+02	Beam
37	50	51	0	1	1			0.00E+00	0.00E+00	0.15E+02	Beam
38	51	52	0	1	1			0.00E+00	0.00E+00	0.12E+02	Beam
39	52	45	0	1	1			0.00E+00	0.00E+00	0.15E+02	Beam
40	41	46	0	1	1			0.00E+00	0.00E+00	0.42E+02	Beam
41	42	53	0	1	1			0.00E+00	0.00E+00	0.15E+02	Beam
42	53	54	0	1	1			0.00E+00	0.00E+00	0.12E+02	Beam
43	54	49	0	1	1			0.00E+00	0.00E+00	0.15E+02	Beam
44	40	55	0	2	1			0.00E+00	0.00E+00	0.40E+01	Beam
45	55	56	0	2	1			0.00E+00	0.00E+00	0.34E+02	Beam
46	56	47	0	2	1			0.00E+00	0.00E+00	0.40E+01	Beam
47	37	35	0	1	1			0.00E+00	0.00E+00	0.12E+02	Beam
48	35	36	0	1	1			0.00E+00	0.00E+00	0.26E+02	Beam
49	36	43	0	1	1			0.00E+00	0.00E+00	0.12E+02	Beam
50	1	37	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
51	3	38	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
52	6	39	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
53	18	43	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
54	20	44	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
55	23	48	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
56	38	50	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
57	5	40	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
58	5	41	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
59	7	42	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
60	44	45	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
61	22	46	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
62	22	47	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
63	24	49	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
64	57	81	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
65	87	58	0	5	1			0.00E+00	0.00E+00	0.95E+01	Beam
66	58	60	0	5	1			0.00E+00	0.00E+00	0.45E+01	Beam
67	60	61	0	5	1			0.00E+00	0.00E+00	0.14E+02	Beam

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Beam No	Nodes From/ To / Ref			Prop No	Mat No	pincodes I / J		Rigid End Offset I / J		Length	Beam Type
68	63	82	0	4	2			0.00E+00	0.00E+00	0.20E+01	Beam
69	88	64	0	5	1			0.00E+00	0.00E+00	0.95E+01	Beam
70	64	66	0	5	1			0.00E+00	0.00E+00	0.45E+01	Beam
71	66	67	0	5	1			0.00E+00	0.00E+00	0.14E+02	Beam
72	57	69	0	6	1			0.00E+00	0.00E+00	0.73E+01	Beam
73	69	70	0	6	1			0.00E+00	0.00E+00	0.60E+01	Beam
74	70	71	0	6	1			0.00E+00	0.00E+00	0.22E+02	Beam
75	71	72	0	6	1			0.00E+00	0.00E+00	0.60E+01	Beam
76	72	63	0	6	1			0.00E+00	0.00E+00	0.73E+01	Beam
77	62	75	0	7	1			0.00E+00	0.00E+00	0.73E+01	Beam
78	75	78	0	7	1			0.00E+00	0.00E+00	0.34E+02	Beam
79	78	68	0	7	1			0.00E+00	0.00E+00	0.73E+01	Beam
80	75	76	0	1	1			0.00E+00	0.00E+00	0.52E+02	Beam
81	76	77	75	1	1			0.00E+00	0.00E+00	0.60E+01	Beam
82	78	79	0	1	1			0.00E+00	0.00E+00	0.52E+02	Beam
83	79	80	78	1	1			0.00E+00	0.00E+00	0.60E+01	Beam
84	58	62	0	4	2			0.00E+00	0.00E+00	0.40E+01	Beam
85	64	68	0	4	2			0.00E+00	0.00E+00	0.40E+01	Beam
88	12	87	0	4	2	12456		0.00E+00	0.00E+00	0.13E+01	Beam
89	16	61	0	4	2	12456		0.00E+00	0.00E+00	0.13E+01	Beam
90	29	88	0	4	2	12456		0.00E+00	0.00E+00	0.13E+01	Beam
91	33	67	0	4	2	12456		0.00E+00	0.00E+00	0.13E+01	Beam
92	56	74	0	8	2	NA	NA	NA	NA	0.54E+02	Truss
93	55	73	0	8	2	NA	NA	NA	NA	0.54E+02	Truss
94	81	59	0	5	1			0.00E+00	0.00E+00	0.36E+01	Beam
95	82	65	0	5	1			0.00E+00	0.00E+00	0.36E+01	Beam
100	59	87	0	5	1			0.00E+00	0.00E+00	0.32E+02	Beam
101	65	88	0	5	1			0.00E+00	0.00E+00	0.32E+02	Beam

SPRING ELEMENTS

Spring No	Nodes From/ To		Direction	Stiffness No.	Spring Type
-----	-----	-----	-----	-----	-----

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Spring No	Nodes From/ To	Direction	Stiffness No.	Spring Type
1	2 59	Translational	1	L BN
2	19 65	Translational	1	L BN

NODAL CONNECTIVITY

*** WARNING - Node 83 not connected to any element ***
 *** WARNING - Node 84 not connected to any element ***
 *** WARNING - Node 85 not connected to any element ***
 *** WARNING - Node 86 not connected to any element ***

RESTRAINTS

Node No	Global/Local	Restraint Directions
70	GLOBAL	X Y Z - - -
71	GLOBAL	X Y Z - - -
73	GLOBAL	X Y Z RX RY RZ
74	GLOBAL	X Y Z RX RY RZ
77	GLOBAL	X Y Z RX RY RZ
80	GLOBAL	X Y Z RX RY RZ

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GRAVITY LOADING

Direction	Gravity Factor	Load Factor
X	.0000E+00	.1000E+01
Y	-.1000E+01	.1000E+01
Z	.0000E+00	.1000E+01

INERTIA LOADING

Direction	Translational Accel.	Rotational Accel.	Rotational Velocity	Origin
X	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Y	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Z	.0000E+00	.0000E+00	.0000E+00	.0000E+00

Gravity Acceleration = .3864E+03

REFERENCE TEMPERATURE = .0000E+00

BEAM/TRUSS GLOBAL DISTRIBUTED LOADS

BEAM	GLOBAL X-AXIS	GLOBAL Y-AXIS	GLOBAL Z-AXIS
37	.0000E+00	-.5431E+02	.0000E+00
38	.0000E+00	-.5431E+02	.0000E+00
39	.0000E+00	-.5431E+02	.0000E+00
41	.0000E+00	-.1712E+02	.0000E+00
42	.0000E+00	-.1712E+02	.0000E+00
43	.0000E+00	-.1712E+02	.0000E+00

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

L O A D C A S E 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
1	.0000E+00	-.2975E+01	.0000E+00	-.3333E-01	.0000E+00	.0000E+00
2	.0000E+00	-.1232E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
3	.0000E+00	-.4116E+01	.0000E+00	-.3333E-01	.0000E+00	.0000E+00
4	-.5647E-15	-.8346E+01	.0000E+00	.0000E+00	.0000E+00	.3759E+02
5	.0000E+00	-.5339E+01	.0000E+00	.0000E+00	.0000E+00	.3289E+01
6	-.4044E-14	-.1398E+02	.0000E+00	.3333E-01	.0000E+00	-.5073E+02
7	.0000E+00	-.9234E+00	.0000E+00	.0000E+00	.0000E+00	-.5023E+00
8	.0000E+00	-.3651E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
9	.0000E+00	-.3468E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
10	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
11	.0000E+00	-.5476E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
12	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
13	.0000E+00	-.3103E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
14	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
15	.0000E+00	-.5111E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
16	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
17	.0000E+00	-.2921E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
18	.0000E+00	-.2975E+01	.0000E+00	.3333E-01	.0000E+00	.0000E+00
19	.0000E+00	-.1232E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
20	.0000E+00	-.4116E+01	.0000E+00	.3333E-01	.0000E+00	.0000E+00
21	-.5647E-15	-.8346E+01	.0000E+00	.0000E+00	.0000E+00	.3759E+02
22	.0000E+00	-.5339E+01	.0000E+00	.0000E+00	.0000E+00	.3289E+01
23	-.4044E-14	-.1398E+02	.0000E+00	-.3333E-01	.0000E+00	-.5073E+02
24	.0000E+00	-.9234E+00	.0000E+00	.0000E+00	.0000E+00	-.5023E+00
25	.0000E+00	-.3651E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
26	.0000E+00	-.3468E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
27	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
28	.0000E+00	-.5476E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
29	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
30	.0000E+00	-.3103E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
31	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
32	.0000E+00	-.5111E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
33	.0000E+00	-.4016E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
34	.0000E+00	-.2921E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
35	.0000E+00	-.8526E+01	.0000E+00	-.2055E+02	.0000E+00	-.4299E+01

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
36	.0000E+00	-.8526E+01	.0000E+00	.2055E+02	.0000E+00	-.4299E+01
37	-.4044E-14	-.1294E+02	.0000E+00	-.3801E+01	.0000E+00	.4886E+02
38	.0000E+00	-.2337E+01	.0000E+00	.3333E-01	.0000E+00	.3384E+01
39	-.5647E-15	-.6438E+01	.0000E+00	-.3333E-01	.0000E+00	-.2143E+02
40	.0000E+00	-.1566E+01	.0000E+00	-.9773E+00	.0000E+00	.0000E+00
41	.0000E+00	-.9549E+01	.0000E+00	-.6615E+02	.0000E+00	.0000E+00
42	.0000E+00	-.1319E+03	.0000E+00	-.3294E+03	.0000E+00	.0000E+00
43	-.4044E-14	-.1294E+02	.0000E+00	.3801E+01	.0000E+00	.4886E+02
44	.0000E+00	-.2337E+01	.0000E+00	-.3333E-01	.0000E+00	.3384E+01
45	.0000E+00	-.4108E+03	.0000E+00	.1027E+04	.0000E+00	.0000E+00
46	.0000E+00	-.9549E+01	.0000E+00	.6615E+02	.0000E+00	.0000E+00
47	.0000E+00	-.1566E+01	.0000E+00	.9773E+00	.0000E+00	.0000E+00
48	-.5647E-15	-.6438E+01	.0000E+00	.3333E-01	.0000E+00	-.2143E+02
49	.0000E+00	-.1319E+03	.0000E+00	.3294E+03	.0000E+00	.0000E+00
50	.0000E+00	-.4108E+03	.0000E+00	-.1027E+04	.0000E+00	.0000E+00
51	.0000E+00	-.7393E+03	.0000E+00	.3696E+03	.0000E+00	.0000E+00
52	.0000E+00	-.7393E+03	.0000E+00	-.3696E+03	.0000E+00	.0000E+00
53	.0000E+00	-.2372E+03	.0000E+00	.1186E+03	.0000E+00	.0000E+00
54	.0000E+00	-.2372E+03	.0000E+00	-.1186E+03	.0000E+00	.0000E+00
55	.0000E+00	-.1395E+02	.0000E+00	-.6963E+02	.0000E+00	.0000E+00
56	.0000E+00	-.1395E+02	.0000E+00	.6963E+02	.0000E+00	.0000E+00
57	.0000E+00	-.4854E+01	.0000E+00	-.5800E+01	.0000E+00	.0000E+00
58	.0000E+00	-.7193E+01	.0000E+00	.0000E+00	.0000E+00	-.1333E+00
59	.0000E+00	-.1798E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
60	.0000E+00	-.9241E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
61	.0000E+00	-.7125E+01	.0000E+00	-.8712E-01	.0000E+00	.0000E+00
62	.0000E+00	-.2365E+01	.0000E+00	-.2641E+01	.0000E+00	.1333E+00
63	.0000E+00	-.4861E+01	.0000E+00	.5816E+01	.0000E+00	.0000E+00
64	.0000E+00	-.7193E+01	.0000E+00	.0000E+00	.0000E+00	-.1333E+00
65	.0000E+00	-.1798E+02	.0000E+00	.0000E+00	.0000E+00	.0000E+00
66	.0000E+00	-.9241E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
67	.0000E+00	-.7126E+01	.0000E+00	.8845E-01	.0000E+00	.0000E+00
68	.0000E+00	-.2368E+01	.0000E+00	.2648E+01	.0000E+00	.1333E+00
69	.0000E+00	-.8651E+01	.0000E+00	.1903E+01	.0000E+00	.0000E+00
70	.0000E+00	-.1819E+02	.0000E+00	-.4849E+02	.0000E+00	.0000E+00
71	.0000E+00	-.1819E+02	.0000E+00	.4849E+02	.0000E+00	.0000E+00
72	.0000E+00	-.8658E+01	.0000E+00	-.1919E+01	.0000E+00	.0000E+00
73	.0000E+00	-.2118E-01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	-.2118E-01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
75	-.8702E-15	-.2398E+02	.0000E+00	-.5434E+02	.0000E+00	-.1764E+02

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

L O A D C A S E 1

DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

APPLIED LOAD VECTOR

Node	Fx	Fy	Fz	Mx	My	Mz
76	-.8891E-15	-.1311E+02	.0000E+00	-.1350E+01	.2812E-16	.1764E+02
77	-.1891E-16	-.1350E+01	.0000E+00	.1350E+01	-.2812E-16	.0000E+00
78	-.8702E-15	-.2399E+02	.0000E+00	.5433E+02	.0000E+00	-.1764E+02
79	-.8891E-15	-.1311E+02	.0000E+00	.1350E+01	-.2812E-16	.1764E+02
80	-.1891E-16	-.1350E+01	.0000E+00	-.1350E+01	.2812E-16	.0000E+00
81	.0000E+00	-.1911E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
82	.0000E+00	-.1911E+01	.0000E+00	.0000E+00	.0000E+00	.0000E+00
87	.0000E+00	-.2105E+02	.0000E+00	-.8712E-01	.0000E+00	.0000E+00
88	.0000E+00	-.2105E+02	.0000E+00	.8845E-01	.0000E+00	.0000E+00

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

DISPLACEMENTS

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
1	-.3184E-02	-.1581E-01	.7199E-03	/	.4000E-03	-.9151E-04	-.6198E-03
2	-.5276E-02	-.1581E-01	-.6494E-03	/	.4086E-03	-.9151E-04	-.6198E-03
3	.2441E-01	-.1578E-01	.1520E-02	/	-.8202E-03	-.1403E-03	-.7841E-03
4	.4094E-01	-.1576E-01	-.1608E-01	/	-.7919E-03	-.6006E-04	-.7712E-03
5	.2468E-01	-.4864E-02	.9889E-04	/	.1348E-03	-.5064E-04	-.1103E-02
6	.2468E-01	-.3436E-03	.1197E-02	/	-.5759E-03	.1719E-03	-.1776E-03
7	.2468E-01	.4356E-04	.1815E-02	/	-.9177E-03	.1603E-03	-.6991E-04
8	-.4154E-03	-.1581E-01	.2533E-02	/	.4009E-03	-.9662E-04	-.6116E-03
9	.2933E-02	-.1580E-01	.4649E-02	/	.3611E-03	-.1029E-03	-.6072E-03
10	.5363E-02	-.1580E-01	.5987E-02	/	.3041E-03	-.1074E-03	-.6079E-03
11	.9644E-02	-.1580E-01	.7609E-02	/	.1470E-03	-.1153E-03	-.6169E-03
12	.1466E-01	-.1579E-01	.7773E-02	/	-.1216E-03	-.1244E-03	-.6395E-03
13	.1660E-01	-.1579E-01	.7224E-02	/	-.2468E-03	-.1278E-03	-.6547E-03
14	.2033E-01	-.1578E-01	.5161E-02	/	-.5111E-03	-.1341E-03	-.7050E-03
15	.2861E-01	-.1577E-01	-.2950E-02	/	-.8062E-03	-.1202E-03	-.7474E-03
16	.3489E-01	-.1577E-01	-.9742E-02	/	-.7937E-03	-.8923E-04	-.7425E-03
17	.3676E-01	-.1576E-01	-.1172E-01	/	-.7921E-03	-.8012E-04	-.7506E-03
18	-.3249E-02	-.1582E-01	-.7212E-03	/	-.4001E-03	.9322E-04	-.6210E-03
19	-.5345E-02	-.1582E-01	.6487E-03	/	-.4088E-03	.9322E-04	-.6210E-03
20	.2440E-01	-.1579E-01	-.1523E-02	/	.8201E-03	.1409E-03	-.7856E-03
21	.4097E-01	-.1577E-01	.1607E-01	/	.7918E-03	.6072E-04	-.7725E-03
22	.2468E-01	-.4864E-02	-.9726E-04	/	-.1348E-03	.5099E-04	-.1104E-02
23	.2467E-01	-.3262E-03	-.1191E-02	/	.5762E-03	-.1716E-03	-.1789E-03
24	.2467E-01	.6542E-04	-.1808E-02	/	.9183E-03	-.1601E-03	-.7105E-04
25	-.4749E-03	-.1582E-01	-.2535E-02	/	-.4010E-03	.9822E-04	-.6128E-03
26	.2881E-02	-.1582E-01	-.4651E-02	/	-.3612E-03	.1043E-03	-.6084E-03
27	.5315E-02	-.1581E-01	-.5990E-02	/	-.3041E-03	.1088E-03	-.6092E-03
28	.9605E-02	-.1581E-01	-.7611E-02	/	-.1470E-03	.1165E-03	-.6183E-03
29	.1463E-01	-.1580E-01	-.7776E-02	/	.1216E-03	.1254E-03	-.6410E-03
30	.1658E-01	-.1580E-01	-.7227E-02	/	.2468E-03	.1287E-03	-.6562E-03
31	.2031E-01	-.1580E-01	-.5163E-02	/	.5110E-03	.1348E-03	-.7065E-03
32	.2861E-01	-.1579E-01	.2946E-02	/	.8061E-03	.1209E-03	-.7489E-03
33	.3491E-01	-.1578E-01	.9737E-02	/	.7936E-03	.8989E-04	-.7439E-03
34	.3678E-01	-.1578E-01	.1172E-01	/	.7920E-03	.8077E-04	-.7520E-03
35	-.2372E-02	-.6906E-02	.1242E-04	/	.1647E-03	-.5499E-04	-.6412E-03
36	-.2414E-02	-.6909E-02	.8349E-05	/	-.1650E-03	.5795E-04	-.6419E-03
37	-.3001E-02	-.1501E-01	.7199E-03	/	.3999E-03	-.9150E-04	-.6199E-03
38	.2469E-01	-.1742E-01	.1520E-02	/	-.8206E-03	-.1403E-03	-.7852E-03
39	.2502E-01	.8083E-03	.1197E-02	/	-.5760E-03	.1719E-03	-.1779E-03
40	.2248E-01	-.4863E-02	-.1711E-03	/	.1352E-03	-.5058E-04	-.1103E-02

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
41	.2689E-01	-.4864E-02	.3685E-03	/	.1348E-03	-.5063E-04	-.1103E-02
42	.2482E-01	.4331E-04	-.2080E-04	/	-.9178E-03	.1603E-03	-.6991E-04
43	-.3063E-02	-.1502E-01	-.7212E-03	/	-.4001E-03	.9321E-04	-.6211E-03
44	.2468E-01	-.1743E-01	-.1524E-02	/	.8204E-03	.1410E-03	-.7867E-03
45	.2626E-01	-.1743E-01	.1177E-03	/	.8209E-03	.1409E-03	-.7867E-03
46	.2689E-01	-.4864E-02	-.3669E-03	/	-.1348E-03	.5098E-04	-.1104E-02
47	.2247E-01	-.4863E-02	.1727E-03	/	-.1352E-03	.5093E-04	-.1104E-02
48	.2502E-01	.8262E-03	-.1191E-02	/	.5762E-03	-.1716E-03	-.1792E-03
49	.2482E-01	.6517E-04	.2856E-04	/	.9184E-03	-.1601E-03	-.7105E-04
50	.2626E-01	-.1742E-01	-.1212E-03	/	-.8210E-03	-.1403E-03	-.7852E-03
51	.2761E-01	-.4163E-01	-.3591E-04	/	-.1200E-02	-.4023E-04	-.7858E-03
52	.2761E-01	-.4163E-01	.3235E-04	/	.1199E-02	.4012E-04	-.7862E-03
53	.2327E-01	-.1403E-01	-.3170E-05	/	-.5714E-03	.4581E-04	-.7032E-04
54	.2327E-01	-.1402E-01	.1093E-04	/	.5726E-03	-.4571E-04	-.7065E-04
55	.2266E-01	-.3736E-02	-.1384E-03	/	.3340E-03	-.4091E-04	-.1103E-02
56	.2266E-01	-.3736E-02	.1400E-03	/	-.3340E-03	.4126E-04	-.1104E-02
57	-.2854E-03	.1824E-02	.9873E-05	/	-.1477E-03	-.2413E-04	-.4044E-03
58	.2123E-01	.1965E-02	.1053E-02	/	.3079E-03	.2589E-03	-.5392E-03
59	.1992E-02	.1834E-02	-.7702E-03	/	-.1236E-03	.1023E-03	-.4063E-03
60	.2372E-01	.1964E-02	.2439E-02	/	.3079E-03	-.3586E-03	-.5626E-03
61	.3189E-01	.1963E-02	.6750E-02	/	.3079E-03	-.2280E-02	-.5940E-03
62	.2123E-01	-.1917E-03	.1750E-04	/	.3083E-03	.2589E-03	-.5390E-03
63	-.2854E-03	.1823E-02	-.9877E-05	/	.1476E-03	.2411E-04	-.4043E-03
64	.2122E-01	.1964E-02	-.1043E-02	/	-.3075E-03	-.2582E-03	-.5386E-03
65	.1992E-02	.1834E-02	.7694E-03	/	.1236E-03	-.1027E-03	-.4061E-03
66	.2370E-01	.1963E-02	-.2427E-02	/	-.3075E-03	.3622E-03	-.5620E-03
67	.3186E-01	.1962E-02	-.6732E-02	/	-.3075E-03	.2292E-02	-.5933E-03
68	.2122E-01	-.1905E-03	-.9876E-05	/	-.3079E-03	-.2582E-03	-.5385E-03
69	-.1136E-03	.7403E-03	.4448E-05	/	-.1406E-03	-.2180E-04	-.4044E-03
70	.0000E+00	.0000E+00	.0000E+00	/	-.1012E-03	-.1541E-04	-.4044E-03
71	.0000E+00	.0000E+00	.0000E+00	/	.1011E-03	.1540E-04	-.4044E-03
72	-.1135E-03	.7395E-03	-.4446E-05	/	.1405E-03	.2178E-04	-.4043E-03
73	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
75	.1949E-01	.2091E-02	.1532E-04	/	.2655E-03	.1982E-03	-.5312E-03
76	.1877E-03	-.8345E-03	-.2990E-05	/	.1715E-03	.4316E-04	-.1143E-03
77	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
78	.1948E-01	.2093E-02	-.7691E-05	/	-.2652E-03	-.1975E-03	-.5308E-03
79	.1871E-03	-.8320E-03	.2986E-05	/	-.1709E-03	-.4301E-04	-.1143E-03
80	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
81	.5235E-03	.1824E-02	-.2856E-03	/	-.1477E-03	-.2412E-04	-.4045E-03

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SOLVE DISPLACEMENTS Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

LOAD CASE 1
DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

Node	T r a n s l a t i o n s			/	R o t a t i o n s		
	X	Y	Z		X	Y	Z
82	.5233E-03	.1823E-02	.2852E-03	/	.1475E-03	.2410E-04	-.4043E-03
83	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
84	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
85	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
86	.0000E+00	.0000E+00	.0000E+00	/	.0000E+00	.0000E+00	.0000E+00
87	.1629E-01	.1934E-02	-.1140E-02	/	.1589E-03	.1231E-02	-.4998E-03
88	.1628E-01	.1933E-02	.1147E-02	/	-.1585E-03	-.1236E-02	-.4994E-03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

BEAM LOADS AND/OR STRESSES

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 1							
GLoads	2	.2814E-10	.1067E-09	-.1207E+03	.1172E-11	.2855E-12	-.5083E-10
GLoads	1	-.2814E-10	.2464E+01	.1207E+03	-.4075E+03	-.2855E-12	-.1599E-09
LLoads	2	.1067E-09	-.1207E+03	.2814E-10	.2855E-12	-.5083E-10	.1172E-11
LLoads	1	.2464E+01	.1207E+03	-.2814E-10	-.2855E-12	-.1599E-09	-.4075E+03
Stress	2	-.4137E-10	-.4679E+02	.1091E-10	-.1050E-12	.1592E-10	-.5530E-12
Stress	2	-.2489E-10	-.5784E-10	.2892E-10			
Stress	1	.9551E+00	-.4679E+02	.1091E-10	-.1050E-12	-.5008E-10	-.1922E+03
Stress	1	.1932E+03	-.1912E+03	.9658E+02			
BEAM NO. 2							
GLoads	1	.4886E+02	-.3769E+02	-.1180E+03	-.2815E+03	.8900E+02	-.5455E+03
GLoads	8	-.4886E+02	.4098E+02	.1180E+03	-.2496E+03	-.8900E+02	.3256E+03
LLoads	1	-.3769E+02	-.1180E+03	.4886E+02	.8900E+02	-.5455E+03	-.2815E+03
LLoads	8	.4098E+02	.1180E+03	-.4886E+02	-.8900E+02	.3256E+03	-.2496E+03
Stress	1	.1461E+02	-.4574E+02	.1894E+02	-.3272E+02	.1709E+03	.1328E+03
Stress	1	.3183E+03	-.2891E+03	.1625E+03			
Stress	8	.1588E+02	-.4574E+02	.1894E+02	-.3272E+02	.1020E+03	-.1177E+03
Stress	8	.2356E+03	-.2039E+03	.1223E+03			
BEAM NO. 3							
GLoads	8	.4886E+02	-.4098E+02	-.1180E+03	.2496E+03	.8900E+02	-.3256E+03
GLoads	9	-.4886E+02	.4500E+02	.1180E+03	-.8987E+03	-.8900E+02	.5689E+02
LLoads	8	-.4098E+02	-.1180E+03	.4886E+02	.8900E+02	-.3256E+03	.2496E+03
LLoads	9	.4500E+02	.1180E+03	-.4886E+02	-.8900E+02	.5689E+02	-.8987E+03
Stress	8	.1588E+02	-.4574E+02	.1894E+02	-.3272E+02	.1020E+03	-.1177E+03
Stress	8	.2356E+03	-.2039E+03	.1223E+03			
Stress	9	.1744E+02	-.4574E+02	.1894E+02	-.3272E+02	.1782E+02	-.4239E+03
Stress	9	.4592E+03	-.4243E+03	.2319E+03			
BEAM NO. 4							
GLoads	9	.4886E+02	-.4500E+02	-.1180E+03	.8987E+03	.8900E+02	-.5689E+02
GLoads	10	-.4886E+02	.4792E+02	.1180E+03	-.1371E+04	-.8900E+02	-.1386E+03
LLoads	9	-.4500E+02	-.1180E+03	.4886E+02	.8900E+02	-.5689E+02	.8987E+03
LLoads	10	.4792E+02	.1180E+03	-.4886E+02	-.8900E+02	-.1386E+03	-.1371E+04
Stress	9	.1744E+02	-.4574E+02	.1894E+02	-.3272E+02	.1782E+02	-.4239E+03
Stress	9	.4592E+03	-.4243E+03	.2319E+03			
Stress	10	.1857E+02	-.4574E+02	.1894E+02	-.3272E+02	-.4341E+02	-.6466E+03
Stress	10	.7086E+03	-.6714E+03	.3558E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 5							
GLoads	10	.4886E+02	-.4792E+02	-.1180E+03	.1371E+04	.8900E+02	.1386E+03
GLoads	11	-.4886E+02	.5303E+02	.1180E+03	-.2197E+04	-.8900E+02	-.4806E+03
LLoads	10	-.4792E+02	-.1180E+03	.4886E+02	.8900E+02	.1386E+03	.1371E+04
LLoads	11	.5303E+02	.1180E+03	-.4886E+02	-.8900E+02	-.4806E+03	-.2197E+04
Stress	10	.1857E+02	-.4574E+02	.1894E+02	-.3272E+02	-.4341E+02	-.6466E+03
Stress	10	.7086E+03	-.6714E+03	.3558E+03			
Stress	11	.2055E+02	-.4574E+02	.1894E+02	-.3272E+02	-.1506E+03	-.1036E+04
Stress	11	.1207E+04	-.1166E+04	.6046E+03			
BEAM NO. 6							
GLoads	11	.4886E+02	-.5303E+02	-.1180E+03	.2197E+04	.8900E+02	.4806E+03
GLoads	12	-.4886E+02	.5887E+02	.1180E+03	-.3141E+04	-.8900E+02	-.8714E+03
LLoads	11	-.5303E+02	-.1180E+03	.4886E+02	.8900E+02	.4806E+03	.2197E+04
LLoads	12	.5887E+02	.1180E+03	-.4886E+02	-.8900E+02	-.8714E+03	-.3141E+04
Stress	11	.2055E+02	-.4574E+02	.1894E+02	-.3272E+02	-.1506E+03	-.1036E+04
Stress	11	.1207E+04	-.1166E+04	.6046E+03			
Stress	12	.2282E+02	-.4574E+02	.1894E+02	-.3272E+02	-.2730E+03	-.1482E+04
Stress	12	.1777E+04	-.1732E+04	.8893E+03			
BEAM NO. 7							
GLoads	12	.2288E+03	-.5887E+02	-.1180E+03	.3141E+04	.8900E+02	.8714E+03
GLoads	13	-.2288E+03	.6106E+02	.1180E+03	-.3495E+04	-.8900E+02	-.1558E+04
LLoads	12	-.5887E+02	-.1180E+03	.2288E+03	.8900E+02	.8714E+03	.3141E+04
LLoads	13	.6106E+02	.1180E+03	-.2288E+03	-.8900E+02	-.1558E+04	-.3495E+04
Stress	12	.2282E+02	-.4574E+02	.8868E+02	-.3272E+02	-.2730E+03	-.1482E+04
Stress	12	.1777E+04	-.1732E+04	.8893E+03			
Stress	13	.2367E+02	-.4574E+02	.8868E+02	-.3272E+02	-.4880E+03	-.1649E+04
Stress	13	.2160E+04	-.2113E+04	.1081E+04			
BEAM NO. 8							
GLoads	13	.2288E+03	-.6106E+02	-.1180E+03	.3495E+04	.8900E+02	.1558E+04
GLoads	14	-.2288E+03	.6508E+02	.1180E+03	-.4144E+04	-.8900E+02	-.2816E+04
LLoads	13	-.6106E+02	-.1180E+03	.2288E+03	.8900E+02	.1558E+04	.3495E+04
LLoads	14	.6508E+02	.1180E+03	-.2288E+03	-.8900E+02	-.2816E+04	-.4144E+04
Stress	13	.2367E+02	-.4574E+02	.8868E+02	-.3272E+02	-.4880E+03	-.1649E+04
Stress	13	.2160E+04	-.2113E+04	.1081E+04			
Stress	14	.2522E+02	-.4574E+02	.8868E+02	-.3272E+02	-.8822E+03	-.1955E+04
Stress	14	.2862E+04	-.2812E+04	.1432E+04			
BEAM NO. 9							
GLoads	14	.2288E+03	-.6508E+02	-.1180E+03	.4144E+04	.8900E+02	.2816E+04

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

GLoads	3	-.2288E+03	.6909E+02	.1180E+03	-.4793E+04	-.8900E+02	-.4074E+04
LLoads	14	-.6508E+02	-.1180E+03	.2288E+03	.8900E+02	.2816E+04	.4144E+04
LLoads	3	.6909E+02	.1180E+03	-.2288E+03	-.8900E+02	-.4074E+04	-.4793E+04
Stress	14	.2522E+02	-.4574E+02	.8868E+02	-.3272E+02	-.8822E+03	-.1955E+04
Stress	14	.2862E+04	-.2812E+04	.1432E+04			
Stress	3	.2678E+02	-.4574E+02	.8868E+02	-.3272E+02	-.1276E+04	-.2261E+04
Stress	3	.3564E+04	-.3511E+04	.1782E+04			
BEAM NO. 10							
GLoads	3	.2084E+03	-.6796E+02	-.1211E+02	-.2355E+03	-.2861E+03	-.2171E+04
GLoads	15	-.2084E+03	.7198E+02	.1211E+02	.1689E+03	.2861E+03	.1025E+04
LLoads	3	-.6796E+02	-.1211E+02	.2084E+03	-.2861E+03	-.2171E+04	-.2355E+03
LLoads	15	.7198E+02	.1211E+02	-.2084E+03	.2861E+03	.1025E+04	.1689E+03
Stress	3	.2634E+02	-.4694E+01	.8077E+02	.1052E+03	.6803E+03	.1111E+03
Stress	3	.8177E+03	-.7650E+03	.4222E+03			
Stress	15	.2790E+02	-.4694E+01	.8077E+02	.1052E+03	.3212E+03	.7968E+02
Stress	15	.4288E+03	-.3730E+03	.2388E+03			
BEAM NO. 11							
GLoads	15	.2084E+03	-.7198E+02	-.1211E+02	-.1689E+03	-.2861E+03	-.1025E+04
GLoads	16	-.2084E+03	.7819E+02	.1211E+02	.6599E+02	.2861E+03	-.7460E+03
LLoads	15	-.7198E+02	-.1211E+02	.2084E+03	-.2861E+03	-.1025E+04	-.1689E+03
LLoads	16	.7819E+02	.1211E+02	-.2084E+03	.2861E+03	-.7460E+03	.6599E+02
Stress	15	.2790E+02	-.4694E+01	.8077E+02	.1052E+03	.3212E+03	.7968E+02
Stress	15	.4288E+03	-.3730E+03	.2388E+03			
Stress	16	.3031E+02	-.4694E+01	.8077E+02	.1052E+03	-.2337E+03	.3113E+02
Stress	16	.2951E+03	-.2345E+03	.1812E+03			
BEAM NO. 12							
GLoads	16	.2846E+02	-.7819E+02	-.1211E+02	-.6599E+02	-.2861E+03	.7460E+03
GLoads	17	-.2846E+02	.8001E+02	.1211E+02	.3572E+02	.2861E+03	-.8171E+03
LLoads	16	-.7819E+02	-.1211E+02	.2846E+02	-.2861E+03	.7460E+03	-.6599E+02
LLoads	17	.8001E+02	.1211E+02	-.2846E+02	.2861E+03	-.8171E+03	.3572E+02
Stress	16	.3031E+02	-.4694E+01	.1103E+02	.1052E+03	-.2337E+03	.3113E+02
Stress	16	.2951E+03	-.2345E+03	.1812E+03			
Stress	17	.3101E+02	-.4694E+01	.1103E+02	.1052E+03	-.2560E+03	.1685E+02
Stress	17	.3038E+03	-.2418E+03	.1848E+03			
BEAM NO. 13							
GLoads	17	.2846E+02	-.8001E+02	-.1211E+02	-.3572E+02	-.2861E+03	.8171E+03
GLoads	4	-.2846E+02	.8403E+02	.1211E+02	-.3089E+02	.2861E+03	-.9737E+03
LLoads	17	-.8001E+02	-.1211E+02	.2846E+02	-.2861E+03	.8171E+03	-.3572E+02

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	4	.8403E+02	.1211E+02	-.2846E+02	.2861E+03	-.9737E+03	-.3089E+02
Stress	17	.3101E+02	-.4694E+01	.1103E+02	.1052E+03	-.2560E+03	.1685E+02
Stress	17	.3038E+03	-.2418E+03	.1848E+03			
Stress	4	.3257E+02	-.4694E+01	.1103E+02	.1052E+03	-.3050E+03	-.1457E+02
Stress	4	.3522E+03	-.2870E+03	.2051E+03			
BEAM NO. 14							
GLoads	38	.2044E+02	-.1152E+04	.1654E+03	-.1578E+04	.5689E+03	.6245E+04
GLoads	5	-.2044E+02	.1156E+04	-.1654E+03	.1578E+04	.1003E+04	.4715E+04
LLoads	38	-.2044E+02	-.1152E+04	-.1654E+03	.1578E+04	.5689E+03	-.6245E+04
LLoads	5	.2044E+02	.1156E+04	.1654E+03	-.1578E+04	.1003E+04	-.4715E+04
Stress	38	.1286E+02	-.7242E+03	-.1040E+03	-.1160E+04	-.7427E+03	.8153E+04
Stress	38	.8909E+04	-.8883E+04	.4603E+04			
Stress	5	.1286E+02	-.7269E+03	-.1040E+03	-.1160E+04	.1309E+04	-.6155E+04
Stress	5	.7477E+04	-.7451E+04	.3914E+04			
BEAM NO. 15							
GLoads	5	.2046E+02	.4701E+03	-.3361E+02	.8361E+03	-.6075E+03	-.4716E+04
GLoads	6	-.2046E+02	-.4641E+03	.3361E+02	-.8361E+03	.1591E+03	-.1515E+04
LLoads	5	-.2046E+02	.4701E+03	.3361E+02	-.8361E+03	-.6075E+03	.4716E+04
LLoads	6	.2046E+02	-.4641E+03	-.3361E+02	.8361E+03	.1591E+03	.1515E+04
Stress	5	.1287E+02	.2956E+03	.2114E+02	.6148E+03	.7931E+03	-.6157E+04
Stress	5	.6963E+04	-.6937E+04	.3535E+04			
Stress	6	.1287E+02	.2919E+03	.2114E+02	.6148E+03	.2077E+03	.1977E+04
Stress	6	.2198E+04	-.2172E+04	.1259E+04			
BEAM NO. 16							
GLoads	6	-.5295E-02	.3708E+03	-.5605E+02	.1465E+04	-.2978E+02	-.1354E+04
GLoads	7	.5295E-02	-.3691E+03	.5605E+02	-.1465E+04	-.1754E+03	-.4385E+00
LLoads	6	.5295E-02	.3708E+03	.5605E+02	-.1465E+04	-.2978E+02	.1354E+04
LLoads	7	-.5295E-02	-.3691E+03	-.5605E+02	.1465E+04	-.1754E+03	.4385E+00
Stress	6	-.3330E-02	.2332E+03	.3525E+02	.1077E+04	.3888E+02	-.1767E+04
Stress	6	.1806E+04	-.1806E+04	.1406E+04			
Stress	7	-.3330E-02	.2322E+03	.3525E+02	.1077E+04	-.2289E+03	.5724E+00
Stress	7	.2295E+03	-.2295E+03	.1084E+04			
BEAM NO. 17							
GLoads	4	.2846E+02	-.8403E+02	-.1211E+02	.3089E+02	-.2861E+03	.9737E+03
GLoads	39	-.2846E+02	.9670E+02	.1211E+02	.2355E+03	.9543E+01	.1700E+04
LLoads	4	.3779E+02	-.8026E+02	.1211E+02	.1763E+03	-.1846E+03	-.6895E+03
LLoads	39	-.4659E+02	.8939E+02	-.1211E+02	-.1763E+03	-.1565E+03	-.1700E+04
Stress	4	-.2377E+02	-.5048E+02	.7616E+01	-.1296E+03	.2410E+03	.9002E+03
Stress	4	.1117E+04	-.1165E+04	.5967E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	39	-.2930E+02	-.5622E+02	.7616E+01	-.1296E+03	-.2043E+03	-.2220E+04
Stress	39	.2395E+04	-.2453E+04	.1234E+04			
BEAM NO. 18							
GLoads	37	-.4893E+02	.2372E+02	-.1033E+02	.2269E+03	-.1540E+03	.6239E+03
GLoads	6	.4893E+02	-.3609E+01	.1033E+02	-.6711E+03	-.8197E+02	.1168E+04
LLoads	37	.4390E+02	-.3208E+02	.1033E+02	-.2424E+03	.1488E+03	-.5598E+03
LLoads	6	-.2614E+02	.4152E+02	-.1033E+02	.2424E+03	-.6105E+03	-.1085E+04
Stress	37	-.2761E+02	-.2018E+02	.6497E+01	.1782E+03	-.1943E+03	.7307E+03
Stress	37	.8974E+03	-.9526E+03	.5086E+03			
Stress	6	-.1644E+02	-.2611E+02	.6497E+01	.1782E+03	-.7970E+03	-.1416E+04
Stress	6	.2197E+04	-.2230E+04	.1129E+04			
BEAM NO. 19							
GLoads	19	.3766E-11	.1092E-09	.1207E+03	-.2132E-13	-.3553E-12	.2274E-12
GLoads	18	-.3766E-11	.2464E+01	-.1207E+03	.4075E+03	.3553E-12	-.2033E-09
LLoads	19	.1092E-09	.1207E+03	.3766E-11	-.3553E-12	.2274E-12	-.2132E-13
LLoads	18	.2464E+01	-.1207E+03	-.3766E-11	.3553E-12	-.2033E-09	.4075E+03
Stress	19	-.4231E-10	.4679E+02	.1460E-11	.1306E-12	-.7123E-13	.1005E-13
Stress	19	-.4223E-10	-.4239E-10	.2120E-10			
Stress	18	.9551E+00	.4679E+02	.1460E-11	.1306E-12	-.6368E-10	.1922E+03
Stress	18	.1932E+03	-.1912E+03	.9658E+02			
BEAM NO. 20							
GLoads	18	.4896E+02	-.3761E+02	.1180E+03	.2803E+03	-.8708E+02	-.5449E+03
GLoads	25	-.4896E+02	.4090E+02	-.1180E+03	.2505E+03	.8708E+02	.3246E+03
LLoads	18	-.3761E+02	.1180E+03	.4896E+02	-.8708E+02	-.5449E+03	.2803E+03
LLoads	25	.4090E+02	-.1180E+03	-.4896E+02	.8708E+02	.3246E+03	.2505E+03
Stress	18	.1458E+02	.4572E+02	.1898E+02	.3202E+02	.1707E+03	-.1322E+03
Stress	18	.3175E+03	-.2884E+03	.1620E+03			
Stress	25	.1585E+02	.4572E+02	.1898E+02	.3202E+02	.1017E+03	.1182E+03
Stress	25	.2357E+03	-.2040E+03	.1221E+03			
BEAM NO. 21							
GLoads	25	.4896E+02	-.4090E+02	.1180E+03	-.2505E+03	-.8708E+02	-.3246E+03
GLoads	26	-.4896E+02	.4491E+02	-.1180E+03	.8993E+03	.8708E+02	.5530E+02
LLoads	25	-.4090E+02	.1180E+03	.4896E+02	-.8708E+02	-.3246E+03	-.2505E+03
LLoads	26	.4491E+02	-.1180E+03	-.4896E+02	.8708E+02	.5530E+02	.8993E+03
Stress	25	.1585E+02	.4572E+02	.1898E+02	.3202E+02	.1017E+03	.1182E+03
Stress	25	.2357E+03	-.2040E+03	.1221E+03			
Stress	26	.1741E+02	.4572E+02	.1898E+02	.3202E+02	.1732E+02	.4242E+03
Stress	26	.4589E+03	-.4241E+03	.2317E+03			

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

Gloads	Node	Fx	Fy	Fz	Mx	My	Mz
Lloads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 22							
Gloads	26	.4896E+02	-.4491E+02	.1180E+03	-.8993E+03	-.8708E+02	-.5530E+02
Gloads	27	-.4896E+02	.4784E+02	-.1180E+03	.1371E+04	.8708E+02	-.1405E+03
Lloads	26	-.4491E+02	.1180E+03	.4896E+02	-.8708E+02	-.5530E+02	-.8993E+03
Lloads	27	.4784E+02	-.1180E+03	-.4896E+02	.8708E+02	-.1405E+03	.1371E+04
Stress	26	.1741E+02	.4572E+02	.1898E+02	.3202E+02	.1732E+02	.4242E+03
Stress	26	.4589E+03	-.4241E+03	.2317E+03			
Stress	27	.1854E+02	.4572E+02	.1898E+02	.3202E+02	-.4403E+02	.6468E+03
Stress	27	.7094E+03	-.6723E+03	.3561E+03			
BEAM NO. 23							
Gloads	27	.4896E+02	-.4784E+02	.1180E+03	-.1371E+04	-.8708E+02	.1405E+03
Gloads	28	-.4896E+02	.5295E+02	-.1180E+03	.2197E+04	.8708E+02	-.4833E+03
Lloads	27	-.4784E+02	.1180E+03	.4896E+02	-.8708E+02	.1405E+03	-.1371E+04
Lloads	28	.5295E+02	-.1180E+03	-.4896E+02	.8708E+02	-.4833E+03	.2197E+04
Stress	27	.1854E+02	.4572E+02	.1898E+02	.3202E+02	-.4403E+02	.6468E+03
Stress	27	.7094E+03	-.6723E+03	.3561E+03			
Stress	28	.2052E+02	.4572E+02	.1898E+02	.3202E+02	-.1514E+03	.1036E+04
Stress	28	.1208E+04	-.1167E+04	.6050E+03			
BEAM NO. 24							
Gloads	28	.4896E+02	-.5295E+02	.1180E+03	-.2197E+04	-.8708E+02	.4833E+03
Gloads	29	-.4896E+02	.5879E+02	-.1180E+03	.3141E+04	.8708E+02	-.8750E+03
Lloads	28	-.5295E+02	.1180E+03	.4896E+02	-.8708E+02	.4833E+03	-.2197E+04
Lloads	29	.5879E+02	-.1180E+03	-.4896E+02	.8708E+02	-.8750E+03	.3141E+04
Stress	28	.2052E+02	.4572E+02	.1898E+02	.3202E+02	-.1514E+03	.1036E+04
Stress	28	.1208E+04	-.1167E+04	.6050E+03			
Stress	29	.2279E+02	.4572E+02	.1898E+02	.3202E+02	-.2741E+03	.1481E+04
Stress	29	.1778E+04	-.1733E+04	.8897E+03			
BEAM NO. 25							
Gloads	29	.2284E+03	-.5879E+02	.1180E+03	-.3141E+04	-.8708E+02	.8750E+03
Gloads	30	-.2284E+03	.6098E+02	-.1180E+03	.3495E+04	.8708E+02	-.1560E+04
Lloads	29	-.5879E+02	.1180E+03	.2284E+03	-.8708E+02	.8750E+03	-.3141E+04
Lloads	30	.6098E+02	-.1180E+03	-.2284E+03	.8708E+02	-.1560E+04	.3495E+04
Stress	29	.2279E+02	.4572E+02	.8852E+02	.3202E+02	-.2741E+03	.1481E+04
Stress	29	.1778E+04	-.1733E+04	.8897E+03			
Stress	30	.2363E+02	.4572E+02	.8852E+02	.3202E+02	-.4888E+03	.1648E+04
Stress	30	.2161E+04	-.2113E+04	.1081E+04			
BEAM NO. 26							
Gloads	30	.2284E+03	-.6098E+02	.1180E+03	-.3495E+04	-.8708E+02	.1560E+04

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

GLoads	31	-.2284E+03	.6499E+02	-.1180E+03	.4143E+04	.8708E+02	-.2816E+04
LLoads	30	-.6098E+02	.1180E+03	.2284E+03	-.8708E+02	.1560E+04	-.3495E+04
LLoads	31	.6499E+02	-.1180E+03	-.2284E+03	.8708E+02	-.2816E+04	.4143E+04
Stress	30	.2363E+02	.4572E+02	.8852E+02	.3202E+02	-.4888E+03	.1648E+04
Stress	30	.2161E+04	-.2113E+04	.1081E+04			
Stress	31	.2519E+02	.4572E+02	.8852E+02	.3202E+02	-.8823E+03	.1954E+04
Stress	31	.2862E+04	-.2811E+04	.1431E+04			
BEAM NO. 27							
GLoads	31	.2284E+03	-.6499E+02	.1180E+03	-.4143E+04	-.8708E+02	.2816E+04
GLoads	20	-.2284E+03	.6901E+02	-.1180E+03	.4792E+04	.8708E+02	-.4072E+04
LLoads	31	-.6499E+02	.1180E+03	.2284E+03	-.8708E+02	.2816E+04	-.4143E+04
LLoads	20	.6901E+02	-.1180E+03	-.2284E+03	.8708E+02	-.4072E+04	.4792E+04
Stress	31	.2519E+02	.4572E+02	.8852E+02	.3202E+02	-.8823E+03	.1954E+04
Stress	31	.2862E+04	-.2811E+04	.1431E+04			
Stress	20	.2675E+02	.4572E+02	.8852E+02	.3202E+02	-.1276E+04	.2260E+04
Stress	20	.3563E+04	-.3510E+04	.1782E+04			
BEAM NO. 28							
GLoads	20	.2082E+03	-.6764E+02	.1208E+02	.2350E+03	.2861E+03	-.2172E+04
GLoads	32	-.2082E+03	.7166E+02	-.1208E+02	-.1685E+03	-.2861E+03	.1027E+04
LLoads	20	-.6764E+02	.1208E+02	.2082E+03	.2861E+03	-.2172E+04	.2350E+03
LLoads	32	.7166E+02	-.1208E+02	-.2082E+03	-.2861E+03	.1027E+04	-.1685E+03
Stress	20	.2622E+02	.4684E+01	.8071E+02	-.1052E+03	.6804E+03	-.1108E+03
Stress	20	.8175E+03	-.7651E+03	.4221E+03			
Stress	32	.2778E+02	.4684E+01	.8071E+02	-.1052E+03	.3216E+03	-.7950E+02
Stress	32	.4289E+03	-.3734E+03	.2389E+03			
BEAM NO. 29							
GLoads	32	.2082E+03	-.7166E+02	.1208E+02	.1685E+03	.2861E+03	-.1027E+04
GLoads	33	-.2082E+03	.7787E+02	-.1208E+02	-.6582E+02	-.2861E+03	-.7433E+03
LLoads	32	-.7166E+02	.1208E+02	.2082E+03	.2861E+03	-.1027E+04	.1685E+03
LLoads	33	.7787E+02	-.1208E+02	-.2082E+03	-.2861E+03	-.7433E+03	-.6582E+02
Stress	32	.2778E+02	.4684E+01	.8071E+02	-.1052E+03	.3216E+03	-.7950E+02
Stress	32	.4289E+03	-.3734E+03	.2389E+03			
Stress	33	.3018E+02	.4684E+01	.8071E+02	-.1052E+03	-.2329E+03	-.3105E+02
Stress	33	.2941E+03	-.2337E+03	.1808E+03			
BEAM NO. 30							
GLoads	33	.2881E+02	-.7787E+02	.1208E+02	.6582E+02	.2861E+03	.7433E+03
GLoads	34	-.2881E+02	.7969E+02	-.1208E+02	-.3561E+02	-.2861E+03	-.8154E+03
LLoads	33	-.7787E+02	.1208E+02	.2881E+02	.2861E+03	.7433E+03	.6582E+02

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	34	.7969E+02	-.1208E+02	-.2881E+02	-.2861E+03	-.8154E+03	-.3561E+02
Stress	33	.3018E+02	.4684E+01	.1117E+02	-.1052E+03	-.2329E+03	-.3105E+02
Stress	33	.2941E+03	-.2337E+03	.1808E+03			
Stress	34	.3089E+02	.4684E+01	.1117E+02	-.1052E+03	-.2554E+03	-.1680E+02
Stress	34	.3031E+03	-.2414E+03	.1845E+03			
BEAM NO. 31							
GLoads	34	.2881E+02	-.7969E+02	.1208E+02	.3561E+02	.2861E+03	.8154E+03
GLoads	21	-.2881E+02	.8371E+02	-.1208E+02	.3085E+02	-.2861E+03	-.9738E+03
LLoads	34	-.7969E+02	.1208E+02	.2881E+02	.2861E+03	.8154E+03	.3561E+02
LLoads	21	.8371E+02	-.1208E+02	-.2881E+02	-.2861E+03	-.9738E+03	.3085E+02
Stress	34	.3089E+02	.4684E+01	.1117E+02	-.1052E+03	-.2554E+03	-.1680E+02
Stress	34	.3031E+03	-.2414E+03	.1845E+03			
Stress	21	.3244E+02	.4684E+01	.1117E+02	-.1052E+03	-.3051E+03	.1455E+02
Stress	21	.3521E+03	-.2872E+03	.2051E+03			
BEAM NO. 32							
GLoads	44	.2011E+02	-.1152E+04	-.1655E+03	.1578E+04	-.5683E+03	.6245E+04
GLoads	22	-.2011E+02	.1156E+04	.1655E+03	-.1578E+04	-.1004E+04	.4716E+04
LLoads	44	-.2011E+02	-.1152E+04	.1655E+03	-.1578E+04	-.5683E+03	-.6245E+04
LLoads	22	.2011E+02	.1156E+04	-.1655E+03	.1578E+04	-.1004E+04	-.4716E+04
Stress	44	.1265E+02	-.7243E+03	.1041E+03	.1160E+04	.7419E+03	.8153E+04
Stress	44	.8907E+04	-.8882E+04	.4602E+04			
Stress	22	.1265E+02	-.7270E+03	.1041E+03	.1160E+04	-.1310E+04	-.6157E+04
Stress	22	.7480E+04	-.7455E+04	.3916E+04			
BEAM NO. 33							
GLoads	22	.2009E+02	.4699E+03	.3358E+02	-.8364E+03	.6075E+03	-.4715E+04
GLoads	23	-.2009E+02	-.4639E+03	-.3358E+02	.8364E+03	-.1595E+03	-.1514E+04
LLoads	22	-.2009E+02	.4699E+03	-.3358E+02	.8364E+03	.6075E+03	.4715E+04
LLoads	23	.2009E+02	-.4639E+03	.3358E+02	-.8364E+03	-.1595E+03	.1514E+04
Stress	22	.1263E+02	.2955E+03	-.2112E+02	-.6150E+03	-.7931E+03	-.6155E+04
Stress	22	.6961E+04	-.6935E+04	.3534E+04			
Stress	23	.1263E+02	.2918E+03	-.2112E+02	-.6150E+03	-.2083E+03	.1976E+04
Stress	23	.2197E+04	-.2172E+04	.1259E+04			
BEAM NO. 34							
GLoads	23	.5294E-02	.3709E+03	.5605E+02	-.1467E+04	.3001E+02	-.1355E+04
GLoads	24	-.5294E-02	-.3692E+03	-.5605E+02	.1467E+04	.1751E+03	.4385E+00
LLoads	23	-.5294E-02	.3709E+03	-.5605E+02	.1467E+04	.3001E+02	.1355E+04
LLoads	24	.5294E-02	-.3692E+03	.5605E+02	-.1467E+04	.1751E+03	-.4385E+00
Stress	23	.3330E-02	.2332E+03	-.3525E+02	-.1078E+04	-.3917E+02	-.1769E+04
Stress	23	.1808E+04	-.1808E+04	.1407E+04			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	24	.3330E-02	.2322E+03	-.3525E+02	-.1078E+04	.2286E+03	-.5724E+00
Stress	24	.2292E+03	-.2292E+03	.1085E+04			
BEAM NO. 35							
GLoads	21	.2881E+02	-.8371E+02	.1208E+02	-.3085E+02	.2861E+03	.9738E+03
GLoads	48	-.2881E+02	.9638E+02	-.1208E+02	-.2350E+03	-.1015E+02	.1701E+04
LLoads	21	.3732E+02	-.8028E+02	-.1208E+02	-.1763E+03	.1847E+03	-.6897E+03
LLoads	48	-.4611E+02	.8941E+02	.1208E+02	.1763E+03	.1557E+03	-.1701E+04
Stress	21	-.2347E+02	-.5049E+02	-.7600E+01	.1296E+03	-.2411E+03	.9003E+03
Stress	21	.1118E+04	-.1165E+04	.5967E+03			
Stress	48	-.2900E+02	-.5623E+02	-.7600E+01	.1296E+03	.2033E+03	-.2220E+04
Stress	48	.2394E+04	-.2452E+04	.1233E+04			
BEAM NO. 36							
GLoads	43	-.4889E+02	.2363E+02	.1038E+02	-.2258E+03	.1551E+03	.6242E+03
GLoads	23	.4889E+02	-.3524E+01	-.1038E+02	.6724E+03	.8204E+02	.1168E+04
LLoads	43	.4381E+02	-.3209E+02	-.1038E+02	.2429E+03	-.1474E+03	-.5600E+03
LLoads	23	-.2605E+02	.4153E+02	.1038E+02	-.2429E+03	.6115E+03	-.1085E+04
Stress	43	-.2755E+02	-.2019E+02	-.6531E+01	-.1786E+03	.1925E+03	.7311E+03
Stress	43	.8960E+03	-.9511E+03	.5080E+03			
Stress	23	-.1638E+02	-.2612E+02	-.6531E+01	-.1786E+03	.7983E+03	-.1416E+04
Stress	23	.2198E+04	-.2231E+04	.1130E+04			
BEAM NO. 37							
GLoads	50	-.4316E-01	.1150E+04	-.2713E+03	.7152E+04	-.1530E+03	.5567E+00
GLoads	51	.4316E-01	-.3286E+03	.2713E+03	.3937E+04	.1536E+03	-.5567E+00
LLoads	50	.2713E+03	.1150E+04	-.4316E-01	-.5567E+00	-.1530E+03	.7152E+04
LLoads	51	-.2713E+03	-.3286E+03	.4316E-01	.5567E+00	.1536E+03	.3937E+04
Stress	50	-.1707E+03	.7233E+03	-.2714E-01	.4094E+00	.1997E+03	-.9337E+04
Stress	50	.9366E+04	-.9707E+04	.4854E+04			
Stress	51	-.1707E+03	.2067E+03	-.2714E-01	.4094E+00	.2005E+03	.5140E+04
Stress	51	.5170E+04	-.5511E+04	.2756E+04			
BEAM NO. 38							
GLoads	51	-.4316E-01	.3286E+03	-.2713E+03	-.3937E+04	-.1536E+03	.5567E+00
GLoads	52	.4316E-01	.3285E+03	.2713E+03	.3938E+04	.1541E+03	-.5567E+00
LLoads	51	.2713E+03	.3286E+03	-.4316E-01	-.5567E+00	-.1536E+03	-.3937E+04
LLoads	52	-.2713E+03	.3285E+03	.4316E-01	.5567E+00	.1541E+03	.3938E+04
Stress	51	-.1707E+03	.2067E+03	-.2714E-01	.4094E+00	.2005E+03	.5140E+04
Stress	51	.5170E+04	-.5511E+04	.2756E+04			
Stress	52	-.1707E+03	-.2066E+03	-.2714E-01	.4094E+00	.2012E+03	.5141E+04
Stress	52	.5171E+04	-.5513E+04	.2756E+04			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

BEAM NO. 39							
GLoads	52	-.4316E-01	-.3285E+03	-.2713E+03	-.3938E+04	-.1541E+03	.5567E+00
GLoads	45	.4316E-01	.1150E+04	.2713E+03	-.7151E+04	.1548E+03	-.5567E+00
LLoads	52	.2713E+03	-.3285E+03	-.4316E-01	-.5567E+00	-.1541E+03	-.3938E+04
LLoads	45	-.2713E+03	.1150E+04	.4316E-01	.5567E+00	.1548E+03	-.7151E+04
Stress	52	-.1707E+03	-.2066E+03	-.2714E-01	.4094E+00	.2012E+03	.5141E+04
Stress	52	.5171E+04	-.5513E+04	.2756E+04			
Stress	45	-.1707E+03	-.7232E+03	-.2714E-01	.4094E+00	.2021E+03	-.9335E+04
Stress	45	.9366E+04	-.9708E+04	.4854E+04			
BEAM NO. 40							
GLoads	41	-.1670E-01	.9450E+01	.8351E+03	.2136E+03	-.5525E+02	.4057E+00
GLoads	46	.1670E-01	.9449E+01	-.8351E+03	-.2136E+03	.5595E+02	-.4057E+00
LLoads	41	-.8351E+03	.9450E+01	-.1670E-01	-.4057E+00	-.5525E+02	.2136E+03
LLoads	46	.8351E+03	.9449E+01	.1670E-01	.4057E+00	.5595E+02	-.2136E+03
Stress	41	.5252E+03	.5943E+01	-.1050E-01	.2983E+00	.7212E+02	-.2789E+03
Stress	41	.8763E+03	.1742E+03	.4381E+03			
Stress	46	.5252E+03	-.5943E+01	-.1050E-01	.2983E+00	.7304E+02	-.2789E+03
Stress	46	.8772E+03	.1733E+03	.4386E+03			
BEAM NO. 41							
GLoads	42	-.5295E-02	.3689E+03	-.5605E+02	.1577E+04	.1754E+03	.4279E+00
GLoads	53	.5295E-02	-.1054E+03	.5605E+02	.1980E+04	-.1753E+03	-.4279E+00
LLoads	42	.5605E+02	.3689E+03	-.5295E-02	-.4279E+00	.1754E+03	.1577E+04
LLoads	53	-.5605E+02	-.1054E+03	.5295E-02	.4279E+00	-.1753E+03	.1980E+04
Stress	42	-.3525E+02	.2320E+03	-.3330E-02	.3146E+00	-.2289E+03	-.2059E+04
Stress	42	.2253E+04	-.2323E+04	.1162E+04			
Stress	53	-.3525E+02	.6628E+02	-.3330E-02	.3146E+00	-.2288E+03	.2585E+04
Stress	53	.2778E+04	-.2849E+04	.1424E+04			
BEAM NO. 42							
GLoads	53	-.5295E-02	.1054E+03	-.5605E+02	-.1980E+04	.1753E+03	.4279E+00
GLoads	54	.5295E-02	.1055E+03	.5605E+02	.1980E+04	-.1752E+03	-.4279E+00
LLoads	53	.5605E+02	.1054E+03	-.5295E-02	-.4279E+00	.1753E+03	-.1980E+04
LLoads	54	-.5605E+02	.1055E+03	.5295E-02	.4279E+00	-.1752E+03	.1980E+04
Stress	53	-.3525E+02	.6628E+02	-.3330E-02	.3146E+00	-.2288E+03	.2585E+04
Stress	53	.2778E+04	-.2849E+04	.1424E+04			
Stress	54	-.3525E+02	-.6632E+02	-.3330E-02	.3146E+00	-.2287E+03	.2584E+04
Stress	54	.2778E+04	-.2848E+04	.1424E+04			
BEAM NO. 43							
GLoads	54	-.5295E-02	-.1055E+03	-.5605E+02	-.1980E+04	.1752E+03	.4279E+00

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	49	.5295E-02	.3690E+03	.5605E+02	-.1579E+04	-.1751E+03	-.4279E+00
LLoads	54	.5605E+02	-.1055E+03	-.5295E-02	-.4279E+00	.1752E+03	-.1980E+04
LLoads	49	-.5605E+02	.3690E+03	.5295E-02	.4279E+00	-.1751E+03	-.1579E+04
Stress	54	-.3525E+02	-.6632E+02	-.3330E-02	.3146E+00	-.2287E+03	.2584E+04
Stress	54	.2778E+04	-.2848E+04	.1424E+04			
Stress	49	-.3525E+02	-.2321E+03	-.3330E-02	.3146E+00	-.2286E+03	-.2061E+04
Stress	49	.2255E+04	-.2325E+04	.1163E+04			
BEAM NO. 44							
GLoads	40	-.3301E-02	-.1636E+04	-.6361E+03	-.5570E+04	-.3400E+03	.1196E+01
GLoads	55	.3301E-02	.1639E+04	.6361E+03	-.9784E+03	.3400E+03	-.1196E+01
LLoads	40	.6361E+03	-.1636E+04	-.3301E-02	-.1196E+01	-.3400E+03	-.5570E+04
LLoads	55	-.6361E+03	.1639E+04	.3301E-02	.1196E+01	.3400E+03	-.9784E+03
Stress	40	-.2456E+03	-.6316E+03	-.1275E-02	.5966E+00	.1450E+03	.3617E+04
Stress	40	.3517E+04	-.4008E+04	.2004E+04			
Stress	55	-.2456E+03	-.6327E+03	-.1275E-02	.5966E+00	.1450E+03	-.6353E+03
Stress	55	.5347E+03	-.1026E+04	.5130E+03			
BEAM NO. 45							
GLoads	55	-.3301E-02	.1246E+02	-.6361E+03	.9784E+03	-.3400E+03	.1196E+01
GLoads	56	.3301E-02	.1246E+02	.6361E+03	-.9784E+03	.3401E+03	-.1196E+01
LLoads	55	.6361E+03	.1246E+02	-.3301E-02	-.1196E+01	-.3400E+03	.9784E+03
LLoads	56	-.6361E+03	.1246E+02	.3301E-02	.1196E+01	.3401E+03	-.9784E+03
Stress	55	-.2456E+03	.4811E+01	-.1275E-02	.5966E+00	.1450E+03	-.6353E+03
Stress	55	.5347E+03	-.1026E+04	.5130E+03			
Stress	56	-.2456E+03	-.4811E+01	-.1275E-02	.5966E+00	.1450E+03	-.6353E+03
Stress	56	.5348E+03	-.1026E+04	.5130E+03			
BEAM NO. 46							
GLoads	56	-.3301E-02	.1639E+04	-.6361E+03	.9784E+03	-.3401E+03	.1196E+01
GLoads	47	.3301E-02	-.1636E+04	.6361E+03	.5570E+04	.3401E+03	-.1196E+01
LLoads	56	.6361E+03	.1639E+04	-.3301E-02	-.1196E+01	-.3401E+03	.9784E+03
LLoads	47	-.6361E+03	-.1636E+04	.3301E-02	.1196E+01	.3401E+03	.5570E+04
Stress	56	-.2456E+03	.6327E+03	-.1275E-02	.5966E+00	.1450E+03	-.6353E+03
Stress	56	.5348E+03	-.1026E+04	.5130E+03			
Stress	47	-.2456E+03	.6316E+03	-.1275E-02	.5966E+00	.1451E+03	.3617E+04
Stress	47	.3517E+04	-.4008E+04	.2004E+04			
BEAM NO. 47							
GLoads	37	.6845E-01	.1131E+02	.7619E+01	.3918E+03	-.3274E+02	-.7844E+02
GLoads	35	-.6845E-01	-.5735E+01	-.7619E+01	-.3215E+03	.1027E+03	-.4083E+00
LLoads	37	-.5122E+01	.1131E+02	-.5640E+01	-.2402E+03	-.3274E+02	.3193E+03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	35	.5122E+01	-.5735E+01	.5640E+01	.2402E+03	.1027E+03	-.2137E+03
Stress	37	.3222E+01	.7115E+01	-.3547E+01	.1766E+03	.4274E+02	-.4169E+03
Stress	37	.4628E+03	-.4564E+03	.2911E+03			
Stress	35	.3222E+01	.3607E+01	-.3547E+01	.1766E+03	.1340E+03	-.2789E+03
Stress	35	.4162E+03	-.4097E+03	.2729E+03			
BEAM NO. 48							
GLoads	35	.6845E-01	.5735E+01	.7619E+01	.3215E+03	-.1027E+03	.4083E+00
GLoads	36	-.6845E-01	.5739E+01	-.7619E+01	-.3215E+03	.1009E+03	-.4083E+00
LLoads	35	-.7619E+01	.5735E+01	.6845E-01	-.4083E+00	-.1027E+03	.3215E+03
LLoads	36	.7619E+01	.5739E+01	-.6845E-01	.4083E+00	.1009E+03	-.3215E+03
Stress	35	.4792E+01	.3607E+01	.4305E-01	.3003E+00	.1340E+03	-.4197E+03
Stress	35	.5585E+03	-.5489E+03	.2792E+03			
Stress	36	.4792E+01	-.3609E+01	.4305E-01	.3003E+00	.1317E+03	-.4197E+03
Stress	36	.5563E+03	-.5467E+03	.2781E+03			
BEAM NO. 49							
GLoads	36	.6845E-01	-.5739E+01	.7619E+01	.3215E+03	-.1009E+03	.4083E+00
GLoads	43	-.6845E-01	.1132E+02	-.7619E+01	-.3919E+03	.2987E+02	-.7929E+02
LLoads	36	-.5020E+01	-.5739E+01	.5731E+01	.2397E+03	-.1009E+03	.2143E+03
LLoads	43	.5020E+01	.1132E+02	-.5731E+01	-.2397E+03	.2987E+02	-.3200E+03
Stress	36	.3157E+01	-.3609E+01	.3605E+01	-.1762E+03	.1317E+03	-.2798E+03
Stress	36	.4147E+03	-.4083E+03	.2721E+03			
Stress	43	.3157E+01	-.7117E+01	.3605E+01	-.1762E+03	.3899E+02	-.4178E+03
Stress	43	.4599E+03	-.4536E+03	.2897E+03			
BEAM NO. 50							
GLoads	1	-.4886E+02	.3523E+02	-.2712E+01	.6889E+03	-.8900E+02	.5455E+03
GLoads	37	.4886E+02	-.3503E+02	.2712E+01	-.6187E+03	.1867E+03	-.5455E+03
LLoads	1	.2712E+01	.3523E+02	-.4886E+02	-.5455E+03	-.8900E+02	.6889E+03
LLoads	37	-.2712E+01	-.3503E+02	.4886E+02	.5455E+03	.1867E+03	-.6187E+03
Stress	1	-.2712E-01	.3523E+00	-.4886E+00	.5455E+00	.8900E-01	-.6889E+00
Stress	1	.7508E+00	-.8051E+00	.6779E+00			
Stress	37	-.2712E-01	.3503E+00	-.4886E+00	.5455E+00	.1867E+00	-.6187E+00
Stress	37	.7783E+00	-.8325E+00	.6862E+00			
BEAM NO. 51							
GLoads	3	.2040E+02	-.1126E+01	-.1059E+03	.5029E+04	.3751E+03	.6246E+04
GLoads	38	-.2040E+02	.1326E+01	.1059E+03	-.5031E+04	-.4159E+03	-.6246E+04
LLoads	3	.1059E+03	-.1126E+01	.2040E+02	-.6246E+04	.3751E+03	.5029E+04
LLoads	38	-.1059E+03	.1326E+01	-.2040E+02	.6246E+04	-.4159E+03	-.5031E+04
Stress	3	-.1059E+01	-.1126E-01	.2040E+00	.6246E+01	-.3751E+00	-.5029E+01
Stress	3	.4345E+01	-.6463E+01	.7032E+01			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	38	-.1059E+01	-.1326E-01	.2040E+00	.6246E+01	-.4159E+00	-.5031E+01
Stress	38	.4388E+01	-.6506E+01	.7042E+01			
BEAM NO. 52							
GLoads	6	-.2846E+02	.9690E+02	.1211E+02	.4193E+02	-.4738E+02	.1700E+04
GLoads	39	.2846E+02	-.9670E+02	-.1211E+02	-.2355E+03	-.9543E+01	-.1700E+04
LLoads	6	.1211E+02	.9690E+02	.2846E+02	.1700E+04	-.4738E+02	-.4193E+02
LLoads	39	-.1211E+02	-.9670E+02	-.2846E+02	-.1700E+04	-.9543E+01	.2355E+03
Stress	6	-.1211E+00	.9690E+00	.2846E+00	-.1700E+01	.4738E-01	.4193E-01
Stress	6	-.3180E-01	-.2104E+00	.1704E+01			
Stress	39	-.1211E+00	.9670E+00	.2846E+00	-.1700E+01	-.9543E-02	.2355E+00
Stress	39	.1240E+00	-.3662E+00	.1710E+01			
BEAM NO. 53							
GLoads	18	-.4896E+02	.3515E+02	.2766E+01	-.6878E+03	.8708E+02	.5449E+03
GLoads	43	.4896E+02	-.3495E+02	-.2766E+01	.6177E+03	-.1850E+03	-.5449E+03
LLoads	18	.2766E+01	.3515E+02	.4896E+02	.5449E+03	.8708E+02	.6878E+03
LLoads	43	-.2766E+01	-.3495E+02	-.4896E+02	-.5449E+03	-.1850E+03	-.6177E+03
Stress	18	-.2766E-01	.3515E+00	.4896E+00	-.5449E+00	-.8708E-01	-.6878E+00
Stress	18	.7472E+00	-.8025E+00	.6767E+00			
Stress	43	-.2766E-01	.3495E+00	.4896E+00	-.5449E+00	-.1850E+00	-.6177E+00
Stress	43	.7750E+00	-.8304E+00	.6851E+00			
BEAM NO. 54							
GLoads	20	.2015E+02	-.1365E+01	.1059E+03	-.5027E+04	-.3732E+03	.6244E+04
GLoads	44	-.2015E+02	.1565E+01	-.1059E+03	.5030E+04	.4135E+03	-.6244E+04
LLoads	20	.1059E+03	-.1365E+01	-.2015E+02	.6244E+04	-.3732E+03	.5027E+04
LLoads	44	-.1059E+03	.1565E+01	.2015E+02	-.6244E+04	.4135E+03	-.5030E+04
Stress	20	-.1059E+01	-.1365E-01	-.2015E+00	-.6244E+01	.3732E+00	-.5027E+01
Stress	20	.4342E+01	-.6459E+01	.7030E+01			
Stress	44	-.1059E+01	-.1565E-01	-.2015E+00	-.6244E+01	.4135E+00	-.5030E+01
Stress	44	.4385E+01	-.6502E+01	.7040E+01			
BEAM NO. 55							
GLoads	23	-.2881E+02	.9658E+02	-.1208E+02	-.4202E+02	.4748E+02	.1701E+04
GLoads	48	.2881E+02	-.9638E+02	.1208E+02	.2350E+03	.1015E+02	-.1701E+04
LLoads	23	.1208E+02	.9658E+02	-.2881E+02	-.1701E+04	.4748E+02	-.4202E+02
LLoads	48	-.1208E+02	-.9638E+02	.2881E+02	.1701E+04	.1015E+02	.2350E+03
Stress	23	-.1208E+00	.9658E+00	-.2881E+00	.1701E+01	-.4748E-01	.4202E-01
Stress	23	-.3134E-01	-.2103E+00	.1704E+01			
Stress	48	-.1208E+00	.9638E+00	-.2881E+00	.1701E+01	.1015E-01	.2350E+00
Stress	48	.1243E+00	-.3660E+00	.1710E+01			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 56							
GLoads	38	-.4315E-01	.1150E+04	-.2713E+03	.6609E+04	-.1530E+03	.6430E+00
GLoads	50	.4315E-01	-.1150E+04	.2713E+03	-.7152E+04	.1530E+03	-.5567E+00
LLoads	38	.1150E+04	-.2713E+03	-.4315E-01	-.1530E+03	.6430E+00	.6609E+04
LLoads	50	-.1150E+04	.2713E+03	.4315E-01	.1530E+03	-.5567E+00	-.7152E+04
Stress	38	-.1150E+02	-.2713E+01	-.4315E-03	.1530E+00	-.6430E-03	-.6609E+01
Stress	38	-.4892E+01	-.1811E+02	.9057E+01			
Stress	50	-.1150E+02	-.2713E+01	-.4315E-03	.1530E+00	-.5567E-03	-.7152E+01
Stress	50	-.4347E+01	-.1865E+02	.9328E+01			
BEAM NO. 57							
GLoads	5	-.3301E-02	-.1636E+04	-.6361E+03	-.4298E+04	-.3400E+03	.1190E+01
GLoads	40	.3301E-02	.1636E+04	.6361E+03	.5570E+04	.3400E+03	-.1196E+01
LLoads	5	.1636E+04	-.6361E+03	.3301E-02	.3400E+03	.1190E+01	.4298E+04
LLoads	40	-.1636E+04	.6361E+03	-.3301E-02	-.3400E+03	-.1196E+01	-.5570E+04
Stress	5	-.1636E+02	-.6361E+01	.3301E-04	-.3400E+00	-.1190E-02	-.4298E+01
Stress	5	-.1206E+02	-.2065E+02	.1033E+02			
Stress	40	-.1636E+02	-.6361E+01	.3301E-04	-.3400E+00	-.1196E-02	-.5570E+01
Stress	40	-.1079E+02	-.2193E+02	.1097E+02			
BEAM NO. 58							
GLoads	5	-.1670E-01	.9650E+01	.8351E+03	.1884E+04	-.5525E+02	.4391E+00
GLoads	41	.1670E-01	-.9450E+01	-.8351E+03	-.2136E+03	.5525E+02	-.4057E+00
LLoads	5	.9650E+01	.8351E+03	-.1670E-01	-.5525E+02	.4391E+00	.1884E+04
LLoads	41	-.9450E+01	-.8351E+03	.1670E-01	.5525E+02	-.4057E+00	-.2136E+03
Stress	5	-.9650E-01	.8351E+01	-.1670E-03	.5525E-01	-.4391E-03	-.1884E+01
Stress	5	.1788E+01	-.1981E+01	.9920E+00			
Stress	41	-.9450E-01	.8351E+01	-.1670E-03	.5525E-01	-.4057E-03	-.2136E+00
Stress	41	.1195E+00	-.3085E+00	.1639E+00			
BEAM NO. 59							
GLoads	7	-.5294E-02	.3691E+03	-.5605E+02	.1465E+04	.1754E+03	.4385E+00
GLoads	42	.5294E-02	-.3689E+03	.5605E+02	-.1577E+04	-.1754E+03	-.4279E+00
LLoads	7	.3691E+03	-.5605E+02	-.5294E-02	.1754E+03	.4385E+00	.1465E+04
LLoads	42	-.3689E+03	.5605E+02	.5294E-02	-.1754E+03	-.4279E+00	-.1577E+04
Stress	7	-.3691E+01	-.5605E+00	-.5294E-04	-.1754E+00	-.4385E-03	-.1465E+01
Stress	7	-.2226E+01	-.5157E+01	.2584E+01			
Stress	42	-.3689E+01	-.5605E+00	-.5294E-04	-.1754E+00	-.4279E-03	-.1577E+01
Stress	42	-.2112E+01	-.5267E+01	.2639E+01			
BEAM NO. 60							
GLoads	44	.4316E-01	.1150E+04	.2713E+03	-.6608E+04	.1548E+03	-.6430E+00

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	45	-.4316E-01	-.1150E+04	-.2713E+03	.7151E+04	-.1548E+03	.5567E+00
LLoads	44	.1150E+04	.2713E+03	.4316E-01	.1548E+03	-.6430E+00	-.6608E+04
LLoads	45	-.1150E+04	-.2713E+03	-.4316E-01	-.1548E+03	.5567E+00	.7151E+04
Stress	44	-.1150E+02	.2713E+01	.4316E-03	-.1548E+00	.6430E-03	.6608E+01
Stress	44	-.4893E+01	-.1811E+02	.9056E+01			
Stress	45	-.1150E+02	.2713E+01	.4316E-03	-.1548E+00	.5567E-03	.7151E+01
Stress	45	-.4348E+01	-.1865E+02	.9326E+01			
BEAM NO. 61							
GLoads	22	.1670E-01	.9649E+01	-.8351E+03	-.1884E+04	.5595E+02	-.4391E+00
GLoads	46	-.1670E-01	-.9449E+01	.8351E+03	.2136E+03	-.5595E+02	.4057E+00
LLoads	22	.9649E+01	-.8351E+03	.1670E-01	.5595E+02	-.4391E+00	-.1884E+04
LLoads	46	-.9449E+01	.8351E+03	-.1670E-01	-.5595E+02	.4057E+00	.2136E+03
Stress	22	-.9649E-01	-.8351E+01	.1670E-03	-.5595E-01	.4391E-03	.1884E+01
Stress	22	.1788E+01	-.1981E+01	.9920E+00			
Stress	46	-.9449E-01	-.8351E+01	.1670E-03	-.5595E-01	.4057E-03	.2136E+00
Stress	46	.1195E+00	-.3085E+00	.1641E+00			
BEAM NO. 62							
GLoads	22	.3302E-02	-.1636E+04	.6361E+03	.4298E+04	.3401E+03	-.1189E+01
GLoads	47	-.3302E-02	.1636E+04	-.6361E+03	-.5570E+04	-.3401E+03	.1196E+01
LLoads	22	.1636E+04	.6361E+03	-.3302E-02	-.3401E+03	-.1189E+01	-.4298E+04
LLoads	47	-.1636E+04	-.6361E+03	.3302E-02	.3401E+03	.1196E+01	.5570E+04
Stress	22	-.1636E+02	.6361E+01	-.3302E-04	.3401E+00	.1189E-02	.4298E+01
Stress	22	-.1206E+02	-.2065E+02	.1033E+02			
Stress	47	-.1636E+02	.6361E+01	-.3302E-04	.3401E+00	.1196E-02	.5570E+01
Stress	47	-.1079E+02	-.2193E+02	.1097E+02			
BEAM NO. 63							
GLoads	24	.5294E-02	.3692E+03	.5605E+02	-.1467E+04	-.1751E+03	-.4385E+00
GLoads	49	-.5294E-02	-.3690E+03	-.5605E+02	.1579E+04	.1751E+03	.4279E+00
LLoads	24	.3692E+03	.5605E+02	.5294E-02	-.1751E+03	-.4385E+00	-.1467E+04
LLoads	49	-.3690E+03	-.5605E+02	-.5294E-02	.1751E+03	.4279E+00	.1579E+04
Stress	24	-.3692E+01	.5605E+00	.5294E-04	.1751E+00	.4385E-03	.1467E+01
Stress	24	-.2225E+01	-.5159E+01	.2586E+01			
Stress	49	-.3690E+01	.5605E+00	.5294E-04	.1751E+00	.4279E-03	.1579E+01
Stress	49	-.2111E+01	-.5269E+01	.2640E+01			
BEAM NO. 64							
GLoads	57	.7428E+02	-.3044E+03	-.1021E+03	-.7616E+03	-.6035E+02	.7522E+00
GLoads	81	-.7428E+02	.3046E+03	.1021E+03	.5575E+03	.6035E+02	-.1493E+03
LLoads	57	-.3044E+03	-.1021E+03	.7428E+02	-.6035E+02	.7522E+00	-.7616E+03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	81	.3046E+03	.1021E+03	-.7428E+02	.6035E+02	-.1493E+03	.5575E+03
Stress	57	.3044E+01	-.1021E+01	.7428E+00	.6035E-01	-.7522E-03	.7616E+00
Stress	57	.3807E+01	.2282E+01	.1904E+01			
Stress	81	.3046E+01	-.1021E+01	.7428E+00	.6035E-01	-.1493E+00	.5575E+00
Stress	81	.3753E+01	.2340E+01	.1878E+01			
BEAM NO. 65							
GLoads	87	-.1056E+03	-.3407E+03	.1866E+02	-.7917E+03	.1771E+03	.2823E+04
GLoads	58	.1056E+03	.3502E+03	-.1866E+02	.9689E+03	-.1771E+03	-.1820E+04
LLoads	87	-.3407E+03	.1866E+02	-.1056E+03	.1771E+03	.2823E+04	-.7917E+03
LLoads	58	.3502E+03	-.1866E+02	.1056E+03	-.1771E+03	-.1820E+04	.9689E+03
Stress	87	.9653E+02	.5286E+01	-.2993E+02	-.3543E+04	-.4530E+03	.7578E+03
Stress	87	.1307E+04	-.1114E+04	.3603E+04			
Stress	58	.9921E+02	.5286E+01	-.2993E+02	-.3543E+04	-.2920E+03	.9275E+03
Stress	58	.1319E+04	-.1120E+04	.3604E+04			
BEAM NO. 66							
GLoads	58	-.1799E+03	.1861E+02	-.4301E-11	.8712E-01	.2375E+03	.3329E+04
GLoads	60	.1799E+03	-.1412E+02	.4301E-11	-.8712E-01	-.2375E+03	-.2519E+04
LLoads	58	.1861E+02	-.4301E-11	-.1799E+03	.2375E+03	.3329E+04	.8712E-01
LLoads	60	-.1412E+02	.4301E-11	.1799E+03	-.2375E+03	-.2519E+04	-.8712E-01
Stress	58	-.5273E+01	-.1218E-11	-.5097E+02	-.4750E+04	-.5340E+03	-.8339E-01
Stress	58	.5288E+03	-.5394E+03	.4758E+04			
Stress	60	-.3999E+01	-.1218E-11	-.5097E+02	-.4750E+04	-.4041E+03	-.8339E-01
Stress	60	.4002E+03	-.4082E+03	.4754E+04			
BEAM NO. 67							
GLoads	60	-.1799E+03	.1412E+02	-.4434E-12	.8712E-01	.2375E+03	.2519E+04
GLoads	61	.1799E+03	-.1320E+00	.4434E-12	-.8712E-01	-.2375E+03	-.7390E-12
LLoads	60	.1412E+02	-.4434E-12	-.1799E+03	.2375E+03	.2519E+04	.8712E-01
LLoads	61	-.1320E+00	.4434E-12	.1799E+03	-.2375E+03	-.7390E-12	-.8712E-01
Stress	60	-.3999E+01	-.1256E-12	-.5097E+02	-.4750E+04	-.4041E+03	-.8339E-01
Stress	60	.4002E+03	-.4082E+03	.4754E+04			
Stress	61	-.3739E-01	-.1256E-12	-.5097E+02	-.4750E+04	-.1186E-12	-.8339E-01
Stress	61	.4600E-01	-.1208E+00	.4750E+04			
BEAM NO. 68							
GLoads	63	.7411E+02	-.3035E+03	.1020E+03	.7600E+03	.6056E+02	-.7522E+00
GLoads	82	-.7411E+02	.3037E+03	-.1020E+03	-.5560E+03	-.6056E+02	-.1475E+03
LLoads	63	-.3035E+03	.1020E+03	.7411E+02	.6056E+02	-.7522E+00	.7600E+03
LLoads	82	.3037E+03	-.1020E+03	-.7411E+02	-.6056E+02	-.1475E+03	-.5560E+03
Stress	63	.3035E+01	.1020E+01	.7411E+00	-.6056E-01	.7522E-03	-.7600E+00
Stress	63	.3796E+01	.2274E+01	.1899E+01			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	82	.3037E+01	.1020E+01	.7411E+00	-.6056E-01	-.1475E+00	-.5560E+00
Stress	82	.3741E+01	.2334E+01	.1871E+01			
BEAM NO. 69							
GLoads	88	-.1053E+03	-.3398E+03	-.1869E+02	.7914E+03	-.1781E+03	.2816E+04
GLoads	64	.1053E+03	.3493E+03	.1869E+02	-.9690E+03	.1781E+03	-.1815E+04
LLoads	88	-.3398E+03	-.1869E+02	-.1053E+03	-.1781E+03	.2816E+04	.7914E+03
LLoads	64	.3493E+03	.1869E+02	.1053E+03	.1781E+03	-.1815E+04	-.9690E+03
Stress	88	.9627E+02	-.5296E+01	-.2983E+02	.3561E+04	-.4517E+03	-.7576E+03
Stress	88	.1306E+04	-.1113E+04	.3621E+04			
Stress	64	.9895E+02	-.5296E+01	-.2983E+02	.3561E+04	-.2912E+03	-.9276E+03
Stress	64	.1318E+04	-.1120E+04	.3622E+04			
BEAM NO. 70							
GLoads	64	-.1794E+03	.1861E+02	.4485E-12	-.8844E-01	-.2386E+03	.3319E+04
GLoads	66	.1794E+03	-.1412E+02	-.4485E-12	.8844E-01	.2386E+03	-.2512E+04
LLoads	64	.1861E+02	.4485E-12	-.1794E+03	-.2386E+03	.3319E+04	-.8844E-01
LLoads	66	-.1412E+02	-.4485E-12	.1794E+03	.2386E+03	-.2512E+04	.8844E-01
Stress	64	-.5273E+01	.1271E-12	-.5083E+02	.4773E+04	-.5325E+03	.8466E-01
Stress	64	.5273E+03	-.5379E+03	.4780E+04			
Stress	66	-.4000E+01	.1271E-12	-.5083E+02	.4773E+04	-.4030E+03	.8466E-01
Stress	66	.3991E+03	-.4071E+03	.4777E+04			
BEAM NO. 71							
GLoads	66	-.1794E+03	.1412E+02	.1648E-12	-.8844E-01	-.2386E+03	.2512E+04
GLoads	67	.1794E+03	-.1330E+00	-.1648E-12	.8844E-01	.2386E+03	-.1004E-09
LLoads	66	.1412E+02	.1648E-12	-.1794E+03	-.2386E+03	.2512E+04	-.8844E-01
LLoads	67	-.1330E+00	-.1648E-12	.1794E+03	.2386E+03	-.1004E-09	.8844E-01
Stress	66	-.4000E+01	.4669E-13	-.5083E+02	.4773E+04	-.4030E+03	.8466E-01
Stress	66	.3991E+03	-.4071E+03	.4777E+04			
Stress	67	-.3768E-01	.4669E-13	-.5083E+02	.4773E+04	-.1611E-10	.8466E-01
Stress	67	.4698E-01	-.1223E+00	.4773E+04			
BEAM NO. 72							
GLoads	57	-.7428E+02	.3044E+03	.1021E+03	.7616E+03	.6035E+02	-.7522E+00
GLoads	69	.7428E+02	-.2949E+03	-.1021E+03	.1432E+04	.4834E+03	.7522E+00
LLoads	57	-.1021E+03	.3044E+03	-.7428E+02	.7522E+00	.6035E+02	.7616E+03
LLoads	69	.1021E+03	-.2949E+03	.7428E+02	-.7522E+00	.4834E+03	.1432E+04
Stress	57	.2224E+02	.6633E+02	-.1618E+02	-.9026E-01	-.8193E+01	-.1302E+03
Stress	57	.1606E+03	-.1161E+03	.8031E+02			
Stress	69	.2224E+02	.6426E+02	-.1618E+02	-.9026E-01	.6562E+02	.2448E+03
Stress	69	.3327E+03	-.2882E+03	.1663E+03			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
BEAM NO. 73							
GLoads	69	-.7428E+02	.2949E+03	.1021E+03	-.1432E+04	-.4834E+03	-.7522E+00
GLoads	70	.7428E+02	-.2871E+03	-.1021E+03	.3178E+04	.9291E+03	.7522E+00
LLoads	69	-.1021E+03	.2949E+03	-.7428E+02	.7522E+00	-.4834E+03	-.1432E+04
LLoads	70	.1021E+03	-.2871E+03	.7428E+02	-.7522E+00	.9291E+03	.3178E+04
Stress	69	.2224E+02	.6426E+02	-.1618E+02	-.9026E-01	.6562E+02	.2448E+03
Stress	69	.3327E+03	-.2882E+03	.1663E+03			
Stress	70	.2224E+02	.6256E+02	-.1618E+02	-.9026E-01	.1261E+03	.5433E+03
Stress	70	.6917E+03	-.6472E+03	.3458E+03			
BEAM NO. 74							
GLoads	70	.7785E-01	.1393E+02	.0000E+00	-.3178E+04	-.9291E+03	-.7522E+00
GLoads	71	-.7785E-01	.1464E+02	.0000E+00	.3170E+04	.9274E+03	.7522E+00
LLoads	70	.0000E+00	.1393E+02	.7785E-01	.7522E+00	-.9291E+03	-.3178E+04
LLoads	71	.0000E+00	.1464E+02	-.7785E-01	-.7522E+00	.9274E+03	.3170E+04
Stress	70	.0000E+00	.3036E+01	.1696E-01	-.9026E-01	.1261E+03	.5433E+03
Stress	70	.6694E+03	-.6694E+03	.3347E+03			
Stress	71	.0000E+00	-.3190E+01	.1696E-01	-.9026E-01	.1259E+03	.5420E+03
Stress	71	.6679E+03	-.6679E+03	.3339E+03			
BEAM NO. 75							
GLoads	71	.7411E+02	-.2862E+03	.1020E+03	-.3170E+04	-.9274E+03	-.7522E+00
GLoads	72	-.7411E+02	.2940E+03	-.1020E+03	.1430E+04	.4827E+03	.7522E+00
LLoads	71	-.1020E+03	-.2862E+03	.7411E+02	.7522E+00	-.9274E+03	-.3170E+04
LLoads	72	.1020E+03	.2940E+03	-.7411E+02	-.7522E+00	.4827E+03	.1430E+04
Stress	71	.2223E+02	-.6235E+02	.1615E+02	-.9026E-01	.1259E+03	.5420E+03
Stress	71	.6901E+03	-.6456E+03	.3450E+03			
Stress	72	.2223E+02	-.6405E+02	.1615E+02	-.9026E-01	.6552E+02	.2444E+03
Stress	72	.3322E+03	-.2877E+03	.1661E+03			
BEAM NO. 76							
GLoads	72	.7411E+02	-.2940E+03	.1020E+03	-.1430E+04	-.4827E+03	-.7522E+00
GLoads	63	-.7411E+02	.3035E+03	-.1020E+03	-.7600E+03	-.6056E+02	.7522E+00
LLoads	72	-.1020E+03	-.2940E+03	.7411E+02	.7522E+00	-.4827E+03	-.1430E+04
LLoads	63	.1020E+03	.3035E+03	-.7411E+02	-.7522E+00	-.6056E+02	-.7600E+03
Stress	72	.2223E+02	-.6405E+02	.1615E+02	-.9026E-01	.6552E+02	.2444E+03
Stress	72	.3322E+03	-.2877E+03	.1661E+03			
Stress	63	.2223E+02	-.6613E+02	.1615E+02	-.9026E-01	-.8221E+01	-.1299E+03
Stress	63	.1604E+03	-.1159E+03	.8019E+02			
BEAM NO. 77							
GLoads	62	.7428E+02	-.3692E+03	.1866E+02	-.9690E+03	.1429E+02	-.3252E+02

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	75	-.7428E+02	.3736E+03	-.1866E+02	-.1750E+04	-.5580E+03	.3252E+02
LLoads	62	-.1866E+02	-.3692E+03	.7428E+02	.3252E+02	.1429E+02	-.9690E+03
LLoads	75	.1866E+02	.3736E+03	-.7428E+02	-.3252E+02	-.5580E+03	-.1750E+04
Stress	62	.8928E+01	-.1767E+03	.3554E+02	-.1855E+02	-.1242E+02	.6577E+03
Stress	62	.6791E+03	-.6612E+03	.3400E+03			
Stress	75	.8928E+01	-.1787E+03	.3554E+02	-.1855E+02	-.4852E+03	-.1188E+04
Stress	75	.1682E+04	-.1664E+04	.8411E+03			
BEAM NO. 78							
GLoads	75	-.7011E-02	.1012E+02	.4243E+02	.1093E+04	.4016E+03	-.3256E+00
GLoads	78	.7011E-02	.9988E+01	-.4243E+02	-.1091E+04	-.4014E+03	.3256E+00
LLoads	75	-.4243E+02	.1012E+02	-.7011E-02	.3256E+00	.4016E+03	.1093E+04
LLoads	78	.4243E+02	.9988E+01	.7011E-02	-.3256E+00	-.4014E+03	-.1091E+04
Stress	75	.2030E+02	.4843E+01	-.3355E-02	-.1857E+00	-.3493E+03	-.7418E+03
Stress	75	.1111E+04	-.1071E+04	.5557E+03			
Stress	78	.2030E+02	-.4779E+01	-.3355E-02	-.1857E+00	-.3490E+03	-.7402E+03
Stress	78	.1110E+04	-.1069E+04	.5548E+03			
BEAM NO. 79							
GLoads	78	-.7411E+02	.3727E+03	.1869E+02	.1747E+04	.5575E+03	.3172E+02
GLoads	68	.7411E+02	-.3683E+03	-.1869E+02	.9691E+03	-.1422E+02	-.3172E+02
LLoads	78	-.1869E+02	.3727E+03	-.7411E+02	-.3172E+02	.5575E+03	.1747E+04
LLoads	68	.1869E+02	-.3683E+03	.7411E+02	.3172E+02	-.1422E+02	.9691E+03
Stress	78	.8945E+01	.1783E+03	-.3546E+02	.1809E+02	-.4848E+03	-.1185E+04
Stress	78	.1679E+04	-.1661E+04	.8398E+03			
Stress	68	.8945E+01	.1762E+03	-.3546E+02	.1809E+02	-.1236E+02	.6578E+03
Stress	68	.6791E+03	-.6612E+03	.3400E+03			
BEAM NO. 80							
GLoads	75	.7429E+02	-.3837E+03	-.2377E+02	.6568E+03	.1564E+03	-.3219E+02
GLoads	76	-.7429E+02	.4072E+03	.2377E+02	.5676E+03	.5758E+02	.2990E+03
LLoads	75	.3908E+03	.7128E+01	-.2377E+02	-.4099E+02	.6739E+03	-.3219E+02
LLoads	76	-.4139E+03	-.3079E+01	.2377E+02	.4099E+02	.5690E+03	.2990E+03
Stress	75	-.2458E+03	.4483E+01	-.1495E+02	.3014E+02	-.8797E+03	.4203E+02
Stress	75	.6760E+03	-.1168E+04	.5845E+03			
Stress	76	-.2603E+03	.1936E+01	-.1495E+02	.3014E+02	.7429E+03	.3903E+03
Stress	76	.8729E+03	-.1394E+04	.6974E+03			
BEAM NO. 81							
GLoads	76	.7429E+02	-.4072E+03	-.2377E+02	-.5676E+03	-.5758E+02	-.2990E+03
GLoads	77	-.7429E+02	.4099E+03	.2377E+02	-.1884E+04	-.3882E+03	.2990E+03
LLoads	76	.2377E+02	-.4139E+03	.3079E+01	.2990E+03	.4099E+02	-.5690E+03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
LLoads	77	-.2377E+02	.4166E+03	-.2614E+01	-.2990E+03	-.5806E+02	-.1923E+04
Stress	76	-.1495E+02	-.2603E+03	.1936E+01	-.2199E+03	-.5351E+02	.7429E+03
Stress	76	.7814E+03	-.8113E+03	.4614E+03			
Stress	77	-.1495E+02	-.2620E+03	.1644E+01	-.2199E+03	-.7580E+02	-.2510E+04
Stress	77	.2571E+04	-.2601E+04	.1319E+04			
BEAM NO. 82							
GLoads	78	.7411E+02	-.3826E+03	.2374E+02	-.6560E+03	-.1561E+03	-.3205E+02
GLoads	79	-.7411E+02	.4062E+03	-.2374E+02	-.5666E+03	-.5759E+02	.2989E+03
LLoads	78	.3897E+03	.7129E+01	.2374E+02	.4081E+02	-.6730E+03	-.3205E+02
LLoads	79	-.4129E+03	-.3079E+01	-.2374E+02	-.4081E+02	-.5680E+03	.2989E+03
Stress	78	-.2451E+03	.4483E+01	.1493E+02	-.3001E+02	.8786E+03	.4184E+02
Stress	78	.6754E+03	-.1166E+04	.5836E+03			
Stress	79	-.2597E+03	.1936E+01	.1493E+02	-.3001E+02	-.7416E+03	.3902E+03
Stress	79	.8721E+03	-.1391E+04	.6963E+03			
BEAM NO. 83							
GLoads	79	.7411E+02	-.4062E+03	.2374E+02	.5666E+03	.5759E+02	-.2989E+03
GLoads	80	-.7411E+02	.4089E+03	-.2374E+02	.1879E+04	.3871E+03	.2989E+03
LLoads	79	.2374E+02	-.4129E+03	-.3079E+01	-.2989E+03	-.4081E+02	-.5680E+03
LLoads	80	-.2374E+02	.4155E+03	.2614E+01	.2989E+03	.5789E+02	-.1917E+04
Stress	79	-.1493E+02	-.2597E+03	-.1936E+01	.2198E+03	.5328E+02	.7416E+03
Stress	79	.7799E+03	-.8098E+03	.4607E+03			
Stress	80	-.1493E+02	-.2613E+03	-.1644E+01	.2198E+03	.7557E+02	-.2503E+04
Stress	80	.2563E+04	-.2593E+04	.1315E+04			
BEAM NO. 84							
GLoads	58	.7428E+02	-.3688E+03	.1866E+02	-.9690E+03	-.6035E+02	-.1509E+04
GLoads	62	-.7428E+02	.3692E+03	-.1866E+02	.9690E+03	-.1429E+02	.3252E+02
LLoads	58	.7428E+02	-.3688E+03	.1866E+02	-.9690E+03	-.6035E+02	-.1509E+04
LLoads	62	-.7428E+02	.3692E+03	-.1866E+02	.9690E+03	-.1429E+02	.3252E+02
Stress	58	-.7428E+00	-.3688E+01	.1866E+00	.9690E+00	.6035E-01	.1509E+01
Stress	58	.8262E+00	-.2312E+01	.1508E+01			
Stress	62	-.7428E+00	-.3692E+01	.1866E+00	.9690E+00	-.1429E-01	.3252E-01
Stress	62	-.6960E+00	-.7896E+00	.1046E+01			
BEAM NO. 85							
GLoads	64	.7411E+02	-.3679E+03	-.1869E+02	.9691E+03	.6056E+02	-.1504E+04
GLoads	68	-.7411E+02	.3683E+03	.1869E+02	-.9691E+03	.1422E+02	.3172E+02
LLoads	64	.7411E+02	-.3679E+03	-.1869E+02	.9691E+03	.6056E+02	-.1504E+04
LLoads	68	-.7411E+02	.3683E+03	.1869E+02	-.9691E+03	.1422E+02	.3172E+02
Stress	64	-.7411E+00	-.3679E+01	-.1869E+00	-.9691E+00	-.6056E-01	.1504E+01
Stress	64	.8236E+00	-.2306E+01	.1506E+01			

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CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1: DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
Stress	68	-.7411E+00	-.3683E+01	-.1869E+00	-.9691E+00	.1422E-01	.3172E-01
Stress	68	-.6952E+00	-.7871E+00	.1046E+01			
BEAM NO. 88							
GLoads	12	-.1799E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	87	.1799E+03	.1320E+00	.0000E+00	.8712E-01	-.2375E+03	.0000E+00
LLoads	12	.0000E+00	.0000E+00	.1799E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	87	.0000E+00	.1320E+00	-.1799E+03	.0000E+00	-.2375E+03	-.8712E-01
Stress	12	.0000E+00	.0000E+00	.1799E+01	.0000E+00	.0000E+00	.0000E+00
Stress	12	.0000E+00	.0000E+00	.0000E+00			
Stress	87	.0000E+00	-.1320E-02	.1799E+01	.0000E+00	-.2375E+00	-.8712E-04
Stress	87	.2376E+00	-.2376E+00	.1188E+00			
BEAM NO. 89							
GLoads	16	.1799E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	61	-.1799E+03	.1320E+00	.0000E+00	.8712E-01	.2375E+03	.0000E+00
LLoads	16	.0000E+00	.0000E+00	-.1799E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	61	.0000E+00	.1320E+00	.1799E+03	.0000E+00	.2375E+03	-.8712E-01
Stress	16	.0000E+00	.0000E+00	-.1799E+01	.0000E+00	.0000E+00	.0000E+00
Stress	16	.0000E+00	.0000E+00	.0000E+00			
Stress	61	.0000E+00	-.1320E-02	-.1799E+01	.0000E+00	.2375E+00	-.8712E-04
Stress	61	.2376E+00	-.2376E+00	.1188E+00			
BEAM NO. 90							
GLoads	29	-.1794E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	88	.1794E+03	.1330E+00	.0000E+00	-.8844E-01	.2386E+03	.0000E+00
LLoads	29	.0000E+00	.0000E+00	-.1794E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	88	.0000E+00	.1330E+00	.1794E+03	.0000E+00	.2386E+03	-.8844E-01
Stress	29	.0000E+00	.0000E+00	-.1794E+01	.0000E+00	.0000E+00	.0000E+00
Stress	29	.0000E+00	.0000E+00	.0000E+00			
Stress	88	.0000E+00	-.1330E-02	-.1794E+01	.0000E+00	.2386E+00	-.8844E-04
Stress	88	.2387E+00	-.2387E+00	.1194E+00			
BEAM NO. 91							
GLoads	33	.1794E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	67	-.1794E+03	.1330E+00	.0000E+00	-.8844E-01	-.2386E+03	.0000E+00
LLoads	33	.0000E+00	.0000E+00	.1794E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	67	.0000E+00	.1330E+00	-.1794E+03	.0000E+00	-.2386E+03	-.8844E-01
Stress	33	.0000E+00	.0000E+00	.1794E+01	.0000E+00	.0000E+00	.0000E+00
Stress	33	.0000E+00	.0000E+00	.0000E+00			
Stress	67	.0000E+00	-.1330E-02	.1794E+01	.0000E+00	-.2386E+00	-.8844E-04
Stress	67	.2387E+00	-.2387E+00	.1194E+00			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			

TRUSS NO. 92							
GLoads	56	.0000E+00	-.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	74	.0000E+00	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	56	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	74	-.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	56	-.2090E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	56	-.2090E+04	-.2090E+04	.1045E+04			
Stress	74	-.2090E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	74	-.2090E+04	-.2090E+04	.1045E+04			
TRUSS NO. 93							
GLoads	55	.0000E+00	-.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
GLoads	73	.0000E+00	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	55	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	73	-.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	55	-.2090E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	55	-.2090E+04	-.2090E+04	.1045E+04			
Stress	73	-.2090E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
Stress	73	-.2090E+04	-.2090E+04	.1045E+04			
BEAM NO. 94							
GLoads	81	.7428E+02	-.3046E+03	-.1021E+03	-.5575E+03	-.6035E+02	.1493E+03
GLoads	59	-.7428E+02	.3083E+03	.1021E+03	.1875E+03	.6035E+02	-.4186E+03
LLoads	81	-.3046E+03	-.1021E+03	.7428E+02	-.6035E+02	.1493E+03	-.5575E+03
LLoads	59	.3083E+03	.1021E+03	-.7428E+02	.6035E+02	-.4186E+03	.1875E+03
Stress	81	.8630E+02	-.2892E+02	.2104E+02	.1207E+04	-.2395E+02	.5336E+03
Stress	81	.6439E+03	-.4713E+03	.1249E+04			
Stress	59	.8733E+02	-.2892E+02	.2104E+02	.1207E+04	-.6715E+02	.1795E+03
Stress	59	.3339E+03	-.1593E+03	.1219E+04			
BEAM NO. 95							
GLoads	82	.7411E+02	-.3037E+03	.1020E+03	.5560E+03	.6056E+02	.1475E+03
GLoads	65	-.7411E+02	.3073E+03	-.1020E+03	-.1861E+03	-.6056E+02	-.4161E+03
LLoads	82	-.3037E+03	.1020E+03	.7411E+02	.6056E+02	.1475E+03	.5560E+03
LLoads	65	.3073E+03	-.1020E+03	-.7411E+02	-.6056E+02	-.4161E+03	-.1861E+03
Stress	82	.8604E+02	.2891E+02	.2100E+02	-.1211E+04	-.2366E+02	-.5322E+03
Stress	82	.6419E+03	-.4698E+03	.1253E+04			
Stress	65	.8707E+02	.2891E+02	.2100E+02	-.1211E+04	-.6676E+02	-.1781E+03
Stress	65	.3319E+03	-.1578E+03	.1223E+04			
BEAM NO. 100							
GLoads	59	.7428E+02	-.3083E+03	.1866E+02	-.1875E+03	-.6035E+02	.4186E+03

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

GLoads	Node	Fx	Fy	Fz	Mx	My	Mz
LLoads	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
Stress	Node	Maximum	Minimum	Cmb. Shear			
GLoads	87	-.7428E+02	.3406E+03	-.1866E+02	.7916E+03	.6035E+02	-.2823E+04
LLoads	59	-.3083E+03	.1866E+02	.7428E+02	-.6035E+02	.4186E+03	-.1875E+03
LLoads	87	.3406E+03	-.1866E+02	-.7428E+02	.6035E+02	-.2823E+04	.7916E+03
Stress	59	.8733E+02	.5286E+01	.2104E+02	.1207E+04	-.6715E+02	.1795E+03
Stress	59	.3339E+03	-.1593E+03	.1219E+04			
Stress	87	.9649E+02	.5286E+01	.2104E+02	.1207E+04	-.4530E+03	.7577E+03
Stress	87	.1307E+04	-.1114E+04	.1373E+04			
BEAM NO. 101							
GLoads	65	.7411E+02	-.3073E+03	-.1869E+02	.1861E+03	.6056E+02	.4161E+03
GLoads	88	-.7411E+02	.3397E+03	.1869E+02	-.7913E+03	-.6056E+02	-.2816E+04
LLoads	65	-.3073E+03	-.1869E+02	.7411E+02	.6056E+02	.4161E+03	.1861E+03
LLoads	88	.3397E+03	.1869E+02	-.7411E+02	-.6056E+02	-.2816E+04	-.7913E+03
Stress	65	.8707E+02	-.5296E+01	.2100E+02	-.1211E+04	-.6676E+02	-.1781E+03
Stress	65	.3319E+03	-.1578E+03	.1223E+04			
Stress	88	.9623E+02	-.5296E+01	.2100E+02	-.1211E+04	-.4517E+03	-.7575E+03
Stress	88	.1305E+04	-.1113E+04	.1376E+04			

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SOLVE BEAM LOADS/STRESSES Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

MAXIMUM STRESS SUMMARY FOR BEAMS/TRUSSES
WITHIN SPECIFIED RANGE 1- 101

Maximum (absolute) Stress = .9708E+04 at BEAM 39

Beam	Axial	Y-Shear	Z-Shear	Torsion	Y-Bending	Z-Bending
39	-.1707E+03	-.7232E+03	-.2714E-01	.4094E+00	.2021E+03	-.9335E+04
	Maximum	Minimum	Cmb. Shear			
	.9366E+04	-.9708E+04	.4854E+04			

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SOLVE SPRING LOADS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

SPRING LOADS

Type	Node	Fx	Fy	Fz	Mx	My	Mz

ASPRG NO. 1							
GLoads	2	.0000E+00	.0000E+00	.1207E+03	.0000E+00	.0000E+00	.0000E+00
GLoads	59	.0000E+00	.0000E+00	-.1207E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	2	.1207E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	59	-.1207E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
ASPRG NO. 2							
GLoads	19	.0000E+00	.0000E+00	-.1207E+03	.0000E+00	.0000E+00	.0000E+00
GLoads	65	.0000E+00	.0000E+00	.1207E+03	.0000E+00	.0000E+00	.0000E+00
LLoads	19	.1207E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00
LLoads	65	-.1207E+03	.0000E+00	.0000E+00	.0000E+00	.0000E+00	.0000E+00

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SOLVE REACTIONS

Version 2.0 07/01/90

CORE SAMPLER TRUCK SHIELDED RECEIVER LIFTING FRAME

Load Case 1:DEADWEIGHT LOADS WITH -1 FRAME IN DOWN POSITION

REACTIONS

Node	Fx	Fy	Fz	Mx	My	Mz
70	.7436E+02	-.2732E+03	-.1021E+03	.0000E+00	.0000E+00	.0000E+00
71	.7404E+02	-.2716E+03	.1020E+03	.0000E+00	.0000E+00	.0000E+00
73	.0000E+00	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
74	.0000E+00	.1651E+04	.0000E+00	.0000E+00	.0000E+00	.0000E+00
77	-.7429E+02	.4099E+03	.2377E+02	-.1884E+04	-.3882E+03	.2990E+03
80	-.7411E+02	.4089E+03	-.2374E+02	.1879E+04	.3871E+03	.2989E+03

A3. LOADS AT JUNCTURES OF MEMBERS

Rev. 0

(10) MEMBER DESIGNATIONS $\neq$ WELD JOINT LOCATIONS

- 1 FRAME

MOVEABLE SUPPORT FRAME

WHC-SD-WM-ER-390
Rev. 0

(10) MEMBER DESIGNATIONS & WELD JOINT LOCATIONS

A-192

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
 (8) Originator L. Hyde Date 10/18/94
 (9) Checker H. H. Zain Date 12-21-94

(10) WELD JOINT MEMBERS ⑧ TO ⑪ (-1 FRAME)

DEAD WEIGHT LOADS

LOADS

		F_x	F_y	F_z	M_x	M_y	M_z
WITH M_z Restraint	UP	210	84	-11	56	-345	1070
	DOWN	30	-83	13	-37	298	972
Without M_z Restraint	UP	208	83	-13	67	-368	1065
	DOWN	28	-84	-12	31	-286	974

Forces = LBS

Moments = IN.-LB

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-9171/2 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
(8) Originator L. Hyde Date 10/18/94
(9) Checker H.H. Zuck Date 10-21-94

(10) WELD JOINT MEMBERS ⑨ TO ⑦ (-1 FRAME)

Deadweight Loads

FORCES = LBS. MOMENTS = IN.-LB

Positions -1 Frame	LOCATION	F _x	F _y	F _z	M _x	M _y	M _z
UP	A	2	-369	39	-1497	-203	0
	B	-2	369	-39	1419	203	0
DOWN	A	-51	-369	-57	1579	176	0
	B	51	369	57	-1465	-176	0
With M _z Restraint							
UP	A	2	-369	42	-1488	-203	0
	B	-2	369	-42	1405	203	0
DOWN	A	53	-369	56	-1577	-175	0
	B	-53	369	-56	1465	175	0
Without M _z Restraint							

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDED RECEIVER LIFTING FRAME Assy
 (8) Originator L. Hyck Date 10/18/94
 (9) Checker H. H. Zehn Date 10-21-94

(10) WELD JOINT MEMBERS ⑧ TO ⑦ (-1 FRAME)
B 52 & BSS

Deadweight Loads

FORCES = LBS. Moments = IN.-LB

Position -1 FRAME	LOCATION	F _x	F _y	F _z	M _x	M _y	M _z
UP	A	-210	-71	11	334	-330	1750
	B	210	71	-11	-191	-89	-1750
DOWN	A	-29	96	13	54	-55	1700
	B	29	-96	-13	-246	-4	-1700
With M _z RESTRAINT							
UP	A	-208	-70	13	357	-342	1748
	B	208	70	-13	-217	-74	-1748
DOWN	A	-28	97	12	42	-47	1700
	B	28	-97	-12	-236	-10	-1700
Without M _z RESTRAINT							

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDED RECEIVER LIFTING FRAME Assy
 (8) Originator L. Hyde Date 10/18/94
 (9) Checker H. H. Zish Date 11-21-94

(10) WELD JOINT - MEMBERS 33 TO 7 (-1 FRAME)

B18 & B36

Deadweight Loads

FORCES = LBS MOMENTS = IN.-LBS

POSITION -1 FRAME	F_x	F_y	F_z	M_x	M_y	M_z
UP	-42	191	17	-826	-93	1337
DOWN	48	-3	11	-681	-77	1168
WITH M_z RESTRAINT						
UP	-41	189	17	-824	-70	1330
DOWN	49	-4	10	-671	-82	1168
WITHOUT M_z RESTRAINT						

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDED METAL ARC WELDING FRAME ASSEMBLY
(8) Originator L. Hyde Date 10/18/94
(9) Checker H.H. Zick Date 10-21-94

(10) WELD JOINT MEMBERS ③ TO ① (-1 FRAME)

B58 & B61

Dead weight loads

FORCES = LBS MOMENTS = IN-LB

Position	LOCATION	F _x	F _y	F _z	M _x	M _y	M _z
-1 FRAME							
UP	A	3	-10	-759	-206	50	0
	B	-3	10	759	1723	-50	0
Down	A	2	-10	-831	-213	55	0
	B	-2	10	831	1875	-55	0
With M _z Restraint							
UP	A	3	-10	-748	-203	52	0
	B	-3	10	748	1699	-52	0
Down	A	2	-10	-833	-214	55	0
	B	-2	10	833	1884	-55	0
Without M _z Restraint							

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
(8) Originator L. Hyde Date 10/18/94
(9) Checker H.H. Zuck Date 10-21-94

(10) WELD JOINT MEMBERS ⑩ TO ⑦ (-1 FRAME)

BST & B62

Dead Weight Loads

FORCES = LBS. MOMENTS = IN-LB

POSITION -1 FRAME	LOCATION	F_x	F_y	F_z	M_x	M_y	M_z
UP	A	-75	-1636	-653	-4281	-309	2
	B	75	1636	653	5326	309	-2
Down	A	-32	-1636	-637	-4297	-339	1
	B	32	1636	637	5371	339	-1
With M_z RESTRAINT							
UP	A	-76	-1636	-639	-4312	-320	2
	B	76	1636	639	5391	320	-2
Down	A	-33	-1636	-636	-4298	-340	1
	B	33	1636	636	5370	340	-1
Without M_z RESTRAINT							

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-41716 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
(8) Originator L. Hyde Date 10/11/94 RI 10/18/94
(9) Checker H. H. Ziska Date 10-21-94

(10) WELD JOINT MEMBER ⑩ TO ACTUATOR (-1 FRAME)

T92 & T93

DEADWEIGHT LOADS

WITH M_2 RESTRAINT OF MEK. ⑬ AT ORILL RIG
-1 FRAME

UP $P_A = 1662 \text{ LBS}$

DWN $P_A = 1651 \text{ LBS}$

WITHOUT M_2 RESTRAINT
-1 FRAME

UP $P_A = 1662 \text{ LBS}$

DWN $P_A = 1651 \text{ LBS}$

21

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
(8) Originator L. Hyde Date 10/4/94
(9) Checker H. H. Zick Date 10-21-94

(10) WELD JOINT - MEMBERS ④ TO ⑦ TO ⑪ (-1 FRAME)
BS1, BS6 & BS4, BS60

A-206

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDER RECEIVER LIFTING FRAME ASSEMBLY
(8) Originator L. H. Hyde Date 10/18/94
(9) Checker H. H. Zink Date 10-21-94

(10) WELD JOINT - MEMBERS ② TO ③ TO ① (CONT'D)

DEADWEIGHT LOADS

POSITION OF FRAME	LOCATION	F_x	F_y	F_z	M_x	M_y	M_z	
UP	A	-251	25	-117	5104	302	5863	with M_z RESTRAINT OF MEMBER ③ TO DRILL PLUG
	B FROM ①	-252	-1125	95	-1632	36	5862	
	C FROM ④	0	1150	-212	7109	-237	0	
DOWN	A	19	-1	-105	5025	333	6244	
	B FROM ①	19	-1151	161	-1587	532	6243	
	C FROM ④	0	1150	-266	7146	-160	0	
UP	A	-250	25	-104	5081	270	5871	without M_z RESTRAINT
	B FROM ①	-250	-1126	96	-1676	201	5870	
	C FROM ④	0	1150	-200	7078	-249	0	
DOWN	A	20	-1	-106	5029	375	6246	
	B FROM ①	20	-1152	165	-1578	569	6245	
	C FROM ④	0	1150	-271	7152	-153	5867

DESIGN CALCULATION

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(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
(8) Originator L. Hyatt Date 10/18/94
(9) Checker H. H. - Zima Date 10-21-94

(10) WELD JOINT MEMBER 37 TO 37 (-1 FRAME)
B48

DEAD WEIGHT LOADS

FORCES = LBS. MOMENTS = IN.-LB

Position	LOCATION	F _x	F _y	F _z	M _x	M _y	M _z
-1 FRAME							
UP	A	0	6	94	283	-437	0
DOWN	A	7	6	24	311	-171	0
WITH M _z RESTRAINT							
UP	A	0	6	108	304	-303	0
DOWN	A	7	6	8	322	-103	0
WITHOUT M _z RESTRAINT							

DESIGN CALCULATION

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(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDER RECEIVER LIFTING FRAME ASSY
 (8) Originator L. Hyde Date 10/4/94
 (9) Checker H. H. Zick Date 10-21-94

(10) WELD JOINT MEMBERS ⑪, ③⑦ & ③③ (-1 FRAME)

B18, B50 & B36, B53

MODEL GEOMETRY

A-203

DESIGN CALCULATION

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(1) Drawing H-2-9171/6 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDER RAILWAY LIFTING FRAME ASBY
 (8) Originator L. Hyde Date 10/13/94
 (9) Checker H.H. Zick Date 10-21-94

(10) WELD JOINT - MEMBERS ⑪, ⑤⑦ & ③⑤ (CONT'D.)

DEAD WEIGHT LOADS

POSITION OF -I FRAME LOCATION		F_x	F_y	F_z	M_x	M_y	M_z		
UP	A FROM ③⑦	0	11	94	354	430	-78	WITH M_z RESISTANCE OF MEMBER ③⑤ AT DEFL. C.R.	847, N37
	A FROM ③⑤	42	-171	-173	82	-303	985		818, N37
	B	42	-159	77	117	43	907		850, N1
DOWN	A FROM ③⑦	0	11	24	382	46	-78		
	A FROM ③⑤	-48	23	-11	201	-178	621		
	B	-48	34	12	651	-36	543		
UP	A FROM ③⑦	0	11	105	375	483	-78	WITHOUT M_z RESISTANCE	
	A FROM ③⑤	41	-169	-17	114	-307	981		
	B	41	-157	91	174	98	902		
DOWN	A FROM ③⑦	0	11	8	392	-33	-78		
	A FROM ③⑤	-49	24	-10	227	-154	624		
	B	-49	35	-3	689	-59	546		

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(1) Drawing H-2-9171/2 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
(8) Originator L. Hyatt Date 10/11/94 R1 10/18/94
(9) Checker H. H. Zick Date 10-21-94

(10) WELD JOINT MEMBER 17 TO ROLLER (-2 FRAME)

858, 889, 890, 891, S1, S2

DEADWEIGHT LOADS

* WITH M_x RESTRAINT OF MEM. 13 TO DRILL RIG
- 1 FRAME

UP $P_R = 378 \text{ LBS.}$

DWN $P_R = 120 \text{ LBS.}$

* WITHOUT M_x RESTRAINT
- 1 FRAME

UP $P_R = 360 \text{ LBS.}$

DWN $P_R = 180 \text{ LBS.}$

R1

DESIGN CALCULATION

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Rev. 0

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
 (8) Originator L. Hyde Date 10/18/94
 (9) Checker H.H. Zita Date 10-21-94

(10) WELD JOINT MEMBERS (17) TO (12)

(-2 FRAME)

B84, B85

DEADWEIGHT Loads

FORCE = LBS. MOMENTS = IN-LB

POSITION	LOCATION	F_x	F_y	F_z	M_x	M_y	M_z
UP	A	34	-176	70	-96	-11	-863
	B	-34	176	-70	96	-269	159
DOWN	A	41	-211	14	-583	-55	-964
	B	-41	211	-14	583	-1	117
With M_z RESTRAINT							
UP	A	74	-368	39	-844	-14	-1523
	B	-74	368	-39	844	-143	52
DOWN	A	74	-369	19	-969	-60	-1509
	B	-74	369	-19	969	-14	33
Without M_z RESTRAINT							

DESIGN CALCULATION

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(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
(8) Originator L. Hyde Date 10/18/94
(9) Checker H. H. Zick Date 10-21-94

(10) WELD JOINT - MEMBERS 12 TO 15 (2 FRAME)

DEADWEIGHT LOADS

LOCATION
OF
-1 FRAME

F_x

F_y

F_z

M_x

M_y

M_z

WITH M_z RESTRAINT OF MEMBER 15 AT DRILL RLY

UP	0	10	85	776	396	0
DOWN	41	-226	-14	368	87	-117

WITHOUT M_z RESTRAINT

UP	74	-382	-25	698	177	-51
DOWN	74	-384	-24	657	156	-32

FORCES = LBS.

MOMENTS = IN-LBS.

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing 4-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDED METAL ARC WELDING FRAME ASSY
(8) Originator L. Hyde Date 10/18/94
(9) Checker H.H. Zink Date 11-21-94

(10) WELD JOINT - MEMBERS (5) TO (14) (-2 FRAME)

B 80 & B 82
N 76 N 79

DEADWEIGHT LOADS

POSITION OF -1 FRAME	F_x	F_y	F_z	M_x	M_y	M_z
----------------------------	-------	-------	-------	-------	-------	-------

WITH M_z RESTRAINT OF MEMBER (5) AT DRILL 126

UP	-217	3	15	46	334	90
DWN	-253	3	14	23	335	90

WITHOUT M_z RESTRAINT

UP	-413	-3	25	54	564	317
DWN	-414	-3	24	41	569	299

FORCES = LBS

MOMENTS = IN-LB

A-203

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY.
(8) Originator L. Hyde Date 10/18/94
(9) Checker H. H. Zick Date 10-21-94

(10) WELD JOINT - MEMBER ⑭ TO DRILL RIG (-2 FRAME)

B 81 & B 83
N 77 N 80

DEADWEIGHT LOADS

POSITION OF -1 FRAME	F_x	F_y	F_z	M_x	M_y	M_z
WITH M_z RESTRAINT OF MEMBER ⑬ TO DRILL RIG						
UP	-15	220	4	-90	-24	-976
DWN	-14	256	3	-90	-6	-1192
WITHOUT M_z RESTRAINT						
UP	-25	415	-3	-317	-71	-1900
DWN	-24	417	-3	-299	-58	-1923

FORCES = LBS

MOMENTS = IN-LBS.

A-204

DESIGN CALCULATION

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(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
 (8) Originator L. Hyde Date 10/18/94
 (9) Checker H. H. Zink Date 10-21-94

(10) WELD JOINT - MEMBERS (17) TO (13) (-2 FRAME)

BCA & BCB
NS1 NS2

DEADWEIGHT LOADS

POSITION OF -1 FRAME	F_x	F_y	F_z	M_x	M_y	M_z
WITH M_z RESTRAINT OF MEMBER (13) TO DRILL RIG						
UP	-34	112	-18	-21	11	2625
DOWN	-41	147	92	324	55	2205
WITHOUT M_z RESTRAINT						
UP	-74	303	-14	326	14	-150
DOWN	-74	305	102	556	60	-150

FORCES = LBS. MOMENT = IN-LB.

A-210

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building NIA (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
 (8) Originator L. Hyck Date 10/18/94
 (9) Checker H. H. Zick Date 10-21-94

(10) WELD JOINT - MEMBER (3) TO DRILL RIG

* DEADWEIGHT LOADS

REACTIONS @ JOINTS

POSITION OF -1 FRAME	JOINT	F_x (LB)	F_y (LB)	F_z (LB)	M_z (IN-LB)
----------------------------	-------	---------------	---------------	---------------	------------------

WITH M_z RESTRAINT OF MEMBER (3) TO DRILL RIG

UP	J70	34	-80	18	2560
	J71	34	-78	18	2553
DOWN	J70	41	116	92	2123
	J71	41	115	92	2119

WITHOUT M_z RESTRAINT

UP	J70	74	-272	14	—
	J71	74	-270	-14	—
DOWN	J70	74	-273	-102	—
	J71	74	-272	102	—

DESIGN CALCULATION

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(1) Drawing H-2-91715 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building NIA (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
 (8) Originator L. Hydo Date 10/11/94 RI 10/18/94
 (9) Checker H. H. Zih Date 10-21-94

(10) WELD JOINTS - MEMBERS ① & ③ TO DRILL RIG

DEADWEIGHT LOADS

WITH M_z RESTRAINT OF MEMBER ③ TO DRILL RIG
 - 1 FRAME

UP $P_A = 1662 \text{ LB.}$

DOWN $P_A = 1651 \text{ LB.}$

WITHOUT M_z RESTRAINT
 - 1 FRAME

UP $P_A = 1662 \text{ LB.}$

DOWN $P_A = 1651 \text{ LB.}$

RI

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDED RECEIVER LIFTFRAME BODY
 (8) Originator L. Hyde Date 10/15/94
 (9) Checker H.H. Smith Date 11-21-94

(10) A4. MAXIMUM STRESSES IN CRITICAL MEMBERS

MEMBER WITH HIGHEST AXIAL $\pm$ BENDING STRESS IS SELECTED

∇ UP = RAISED TO OPERATING POSITION, DWN = LOWER TO TRANSPORT POSITION

POSITION OF -1 FRAME ∇	H-2-91716 P/N	INCHES GEAM	MAX AXIAL BNDG. STRESS PSI	SHEAR STRESS PSI	BOUNDARY CONDITION CASE
* DEADWEIGHT LOADING					
UP	4	37	9724	4362	WITH M_2 RESTRAINT OF MEMBER ③ AT THE ORILL RIG
DWN	4	39	9705	4353	
UP	4	37	9691	4345	WITHOUT M_2 RESTRAINT OF MEMBER ③
DWN	4	39	9708	4354	

Member 4 is the highly stressed member. The stress in the member is mainly bending.

$$\text{Bending stress} = 9,724 \text{ lb}_f/\text{in}^2$$

$$\text{Allowable bending stress} = 23,760 \text{ lb}_f/\text{in}^2$$

$$\text{Design Margin (DM)} = \frac{23,760}{9,724} - 1 = 1.4$$

APPENDIX B

STRESS ANALYSIS OF THE SHIELDED
RECEIVER ASSEMBLY WELDS

CHECKLIST FOR INDEPENDENT REVIEW

Document Reviewed STRESS ANALYSIS OF SHIELDED RECEIVER LIFTING FRAME FOR CORE SAMPLER TRUCK #2

Authors B. J. Niemi & F. R. Vollert

Document No. WHC-SD-WM-ER-390, Rev. 0

Yes	No	N/A	
☒	☐	☐	Problem completely defined.
☒	☐	☐	Necessary assumptions explicitly stated and supported.
☐	☐	☒	Computer codes and data files documented.
☒	☐	☐	Data used in calculations explicitly stated in document.
☒	☐	☐	Data checked for consistency with original source information as applicable.
☒	☐	☐	Mathematical derivations checked including dimensional consistency of results.
☒	☐	☐	Models appropriate and used within range of validity or use outside range of established validity justified.
☒	☐	☐	Hand calculations checked for errors.
☐	☐	☒	Code run streams correct and consistent with analysis documentation.
☐	☐	☒	Code output consistent with input and with results reported in analysis documentation.
☒	☐	☐	Acceptability limits on analytical results applicable and supported. Limits checked against sources.
☒	☐	☐	Safety margins consistent with good engineering practices.
☒	☐	☐	Conclusions consistent with analytical results and applicable limits.
☒	☐	☐	Results and conclusions address all points required in the problem statement.

MANDATORY

Software QA Log Number _____

H. H. Ziada

Reviewer

10-24-84

Date

Stress Analysis of the Shielded
Receiver Assembly Welds

This appendix includes the stress analysis and evaluation of the welds at the junctures of the SRLF members. The loads were obtained from Appendix A. At each weld, the analysis used the worst loading condition of the four cases analyzed. The weld analysis followed the line analysis method of Blodgett (1982). The weld material is E70XX with ultimate tensile strength of 70,000 lbf/in². The allowable shear strength = $0.3 \times 70,000 = 21,000$ lbf/in². Fillet weld allowable shear stress as a function of fillet weld size = $0.707 \times 21,000 \approx 14,800$ lbf/in². The welds are presented in the same order given in Appendix A.

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- (1) Drawing H-291716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator BJ Niemi Date 10-18-94
 (9) Checker H. H. Zeehm Date 10-21-94

(10) Given:

Weld Joint Member ⑨ to ⑦

Critical Loads

$$\begin{aligned} F_x &= 51 \text{ lb} & M_x &= 1579 \text{ in}\cdot\text{lb} \\ F_y &= 369 \text{ lb} & M_y &= 176 \text{ in}\cdot\text{lb} \\ F_z &= 57 \text{ lb} & M_z &= \emptyset \end{aligned}$$

INSPECTION OF TRUCK SHOWS WELD IS ON ALL FOUR SIDES OF JOINT.

Members

- ⑦ $2 \times 2 \times 1/4$ CS ASTM A-500 GRADE B
 ⑨ $2 \times 2 \times 1/4$ CS ASTM A-500 GRADE B

1) PROPERTIES OF WELD (Biddgett 1982)

$$\begin{aligned} A_w &= 4(2^2) = 8 \text{ in}^2 \\ S_w &= bd + \frac{d^3}{3} = 5.33 \text{ in}^3 \\ J_w &= \frac{(b+d)^3}{6} = 10.67 \text{ in}^4 \\ C &= 1 \text{ in} \end{aligned}$$

DESIGN CALCULATION

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(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page Rev. 0 of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator BJ Niemi Date 10-18-94
 (9) Checker H.H. Zick Date 10-21-94

(10) Members ⑨ To ⑦

2) Determine Resultant Force (F_R) on Weld
 Using Superposition to get equations

$$① F_1 = \frac{F_y}{A_w} + \frac{M_x}{S_w} + \frac{M_z}{S_w} = \frac{369}{8} + \frac{1579}{5.33} = 342.37 \text{ lb/in}$$

$$② F_2 = \frac{F_x}{A_w} + \frac{M_y C}{S_w} = \frac{51}{8} + \frac{176(1)}{10.67} = 22.87 \text{ lb/in}$$

$$③ F_3 = \frac{F_z}{A_w} + \frac{M_y C}{S_w} = \frac{57}{8} + \frac{176(1)}{10.67} = 23.62 \text{ lb/in}$$

$$④ F_R = \sqrt{F_1^2 + F_2^2 + F_3^2} = 343.95 \text{ lb/in}$$

3) Determine min weld size (w)

$$w = \frac{F_R}{f_{allow}} = \frac{343.95}{(.3)(.707)(70,000)} = 0.023 \text{ in} < 1/8"$$

4) Summary

1/8" fillet weld meets AISC Spec for this loading condition.

(1) Drawing H-2-917116 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator BS Niemi Date 10-18-94
 (9) Checker H. H. Zick Date 10-21-94

(10) Weld Joint Members ⑧ To ⑪

Critical Loads

$$\begin{aligned} F_x &= 208 \text{ lb} & M_x &= 67 \text{ in-lb} \\ F_y &= 83 \text{ lb} & M_y &= 368 \text{ in-lb} \\ F_z &= 13 \text{ lb} & M_z &= 1065 \text{ in-lb} \end{aligned}$$

Member

⑧ 2x2x1/4 ASTM A-500 GRADE B CS

⑪ 5x2 1/2 x 3/16 ASTM A-500 GRADE B CS

1) Geometry of Weld

2) Properties of weld - Treating weld As A line (Blodgett 1982)

$$A_w = 2(2.83) + 2(2) = 9.66 \text{ in}$$

$$S_{wz} = bd + \frac{d^3}{3} = 8.33 \text{ in}^2 \text{ where } d = 2.83" \text{ \& } b = 2" \quad C_z = \frac{2.83}{2} = 1.415 \text{ in}$$

$$S_{wy} = bd + \frac{b^3}{3} = 6.99 \text{ in}^2 \text{ where } d = 2" \text{ \& } b = 2.83" \quad C_y = 1 \text{ in}$$

$$J_w = \frac{(b+d)^3}{6} = 18.8 \text{ in}^3$$

DESIGN CALCULATION

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(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building _____ (5) Rev. _____ (6) Job No. _____
 (7) Subject Merricks (E) TO (I)
 (8) Originator KJ Nipipi Date 10-18-94
 (9) Checker H. H. Zim Date 10-21-94

(10) 3) Determine Resultant Force on Weld (F_R)

Using Superposition to get Equations:

$$\textcircled{1} f_1 = \frac{F_x}{A_w} + \frac{M_y}{S_{wy}} + \frac{M_z}{S_{wz}} = \frac{208}{9.46} + \frac{362}{4.99} + \frac{1063}{8.33} = 202.03 \text{ lb/in}$$

$$\textcircled{2} f_2 = \frac{F_y}{A_w} + \frac{M_x C_y}{J_w} = \frac{83}{9.46} + \frac{67(1)}{18.8} = 12.16 \text{ lb/in}$$

$$\textcircled{3} f_3 = \frac{F_z}{A_w} + \frac{M_x C_z}{J_w} = \frac{13}{9.46} + \frac{67(1.415)}{18.8} = 6.39 \text{ lb/in}$$

$$\textcircled{4} F_R = \sqrt{f_1^2 + f_2^2 + f_3^2} = 202.50 \text{ lb/in}$$

4) Determine Required weld size (w)

$$w = \frac{F_R}{f_{allow}} = \frac{202.50}{(0.3)(1.707)(70,000)} = 0.014 \text{ in} < \frac{1}{8} \text{ in}$$

5) Summary

$\frac{1}{8}$ " fillet weld meets AISC speco for this loading condition.

DESIGN CALCULATION

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(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator B. J. Niemi Date 10-18-94
 (9) Checker H. H. Zink Date 10-21-94

(10) Weld Joint Members ⑧ TO ⑦

Given:

Critical Loads

$$F_x = 208 \text{ LB}$$

$$M_x = 357 \text{ in-LB}$$

$$F_y = 70 \text{ LB}$$

$$M_y = 342 \text{ in-LB}$$

$$F_z = 13 \text{ LB}$$

$$M_z = 1748 \text{ in-LB}$$

Member

⑦ 2x2x1/4 ASTM - A500 - GRADE B - CS

⑧ 2x2x1/4 ASTM - A500 - GRADE B - CS

1) Geometry of Weld

$$H^2 = 2^2 + 2^2$$

$$H = 2.83 \text{ in}$$

- Assume:
1. Parallelogram acts as a square weld & determine properties of weld using (Blodgett-1982).
 2. Forces are acting in the plane of the weld.

2) Properties of weld

$$A_w = 4(2.83) = 11.31 \text{ in}$$

$$S_w = bd + \frac{d^3}{3} = 10.68 \text{ in}^2$$

$$J_w = \frac{(b+d)^3}{6} = 30.22 \text{ in}^3$$

$$C = 2.83/2 = 1.415 \text{ in}$$

DESIGN CALCULATION

WHC-SD-WM-ER-390

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Rev. 0 of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator B. J. Niemi Date 10-18-94
 (9) Checker H. H. Zick Date 10-21-94

(10) Members (B) to (7)

3) Find Resultant Force on Weld (F_R)

Using Superposition to get equations.

$$① f_1 = \frac{F_z}{A_w} + \frac{M_x}{S_w} + \frac{M_y}{S_w} = \frac{13}{11.31} + \frac{357}{10.68} + \frac{342}{10.68} = 66.40 \text{ lb/in}$$

$$② f_2 = \frac{F_x}{A_w} + \frac{M_z C}{J_w} = \frac{203}{11.31} + \frac{1748(1.415)}{30.22} = 100.24 \text{ lb/in}$$

$$③ f_3 = \frac{F_y}{A_w} + \frac{M_z C}{J_w} = \frac{70}{11.31} + \frac{1748(1.415)}{30.22} = 78.04 \text{ lb/in}$$

$$④ f_R = \sqrt{f_1^2 + f_2^2 + f_3^2} = 149.11 \text{ lb/in}$$

4) Determine minimum Weld Size (a)

$$a = \frac{f_R}{f_{\text{allow}}} = \frac{149.11 \text{ lb/in}}{(0.3)(0.707)(70,000 \frac{\text{lb}}{\text{in}^2})} = .01 \text{ in} < \frac{3}{16}''$$

5) Summary

$\frac{3}{16}''$ fillet weld meets AISC spec. for this loading case.

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject Shielded Receiver Lifting Frame Assy
(8) Originator B. J. Niemi Date 10-18-94
(9) Checker H. H. Zick Date 10-21-94

Member 38 to 7

(10)

Critical Loads

$$\begin{aligned} F_x &= 42 \text{ lb} & M_x &= 826 \text{ in. lb} \\ F_y &= 191 \text{ lb} & M_y &= 93 \text{ in. lb} \\ F_z &= 17 \text{ lb} & M_z &= 1337 \text{ in. lb} \end{aligned}$$

Members

⑦ 2 x 2 x 1/4 ASTM - A500 - GRADE B - CS

③⑧ 2 x 2 x 1/4 ASTM - A36 - CS

1) Geometry of Weld

$$\begin{aligned} \cos 26^\circ &= \frac{2}{H} \\ H &= 2.23'' \end{aligned}$$

2) Properties of Weld (Blodgett 1982)

Treating weld as a line:

$$A_w = 2(2.23) + 2(2) = 8.46 \text{ in}$$

$$S_{wx} = bd + \frac{d^2}{3} = 5.79 \text{ in}^2$$

$$C_x = 1 \text{ in}$$

$$S_{wz} = bd + \frac{b^2}{3} = 6.12 \text{ in}^2$$

$$C_z = \frac{2.23}{2} = 1.115 \text{ in}$$

$$J_w = \frac{(b+d)^3}{6} = 12.61 \text{ in}^3$$

$$R = 2t = 2(0.25) = .50 \rightarrow \text{Radius of Curvature (AISC 1989)}$$

DESIGN CALCULATION

WHC-SD-WM-ER-390

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(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator BJ Niemi Date 10-18-94
 (9) Checker H.H. Zick Date 10-21-94

(10) Member 38 To 7

3) Find Resultant Force (f_R) on weld

Using superposition to get Equations

$$\begin{aligned} \textcircled{1} f_1 &= \frac{F_y}{A_w} + \frac{M_z}{S_{wz}} + \frac{M_x}{S_{wx}} = \frac{191}{8.46} + \frac{1337}{6.12} + \frac{826}{5.79} = 383.70 \text{ lb/in} \\ \textcircled{2} f_2 &= \frac{F_x}{A_w} + \frac{M_y C_x}{S_{wy}} = \frac{42}{8.46} + \frac{93(1)}{12.41} = 12.34 \text{ lb/in} \\ \textcircled{3} f_3 &= \frac{F_z}{A_w} + \frac{M_y C_z}{S_{wy}} = \frac{17}{8.46} + \frac{93(1.115)}{12.41} = 10.23 \text{ lb/in} \\ \textcircled{4} f_R &= \sqrt{f_1^2 + f_2^2 + f_3^2} = 384.04 \text{ lb/in} \end{aligned}$$

4) Determine Weld Size (w)

$$w = \frac{f_R}{f_{allow}} = \frac{384.04}{(.3)(70,000)} = .018 \text{ in} < 5/16 \text{ R} = 0.156 \text{ in}$$

5) Summary

3/16" plain bevel weld meets AISC spec for this loading condition

DESIGN CALCULATION

WHC-SD-WM-ER-390
Rev. 0

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator B.J. Niemi Date 10-18-94
 (9) Checker H. H. Zink Date 10-21-94

(10) Weld Joint Members (31) To (7)

Critical Loads

$F_x = 2 \text{ lb}$ $M_x = 1875 \text{ in-lb}$
 $F_y = 10 \text{ lb}$ $M_y = 55 \text{ in-lb}$
 $F_z = 831 \text{ lb}$ $M_z = 0$

Member

(31) $2 \times 2 \times \frac{1}{4}$ ASTM - A500 - Grade B - CS
 (7) $2 \times 2 \times \frac{1}{4}$ ASTM - A500 - Grade B - CS

1) Geometry of Weld

2) Properties of Weld (Blodgett 1982) Treating weld as a line.

$$A_w = 4(2) = 8 \text{ in}$$

$$S_w = \frac{bd + d^2}{3} = 5.33 \text{ in}^2$$

$$J_w = \frac{(b+d)^3}{6} = 10.67 \text{ in}^2$$

$$C = 1 \text{ in}$$

DESIGN CALCULATION

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 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator BJ Niemi Date 10-18-94
 (9) Checker H.H. Zink Date 10-21-94

(10) Member ③ To ⑦

3) Determine Resultant force (FR) on Weld

Using superposition to get equations:

$$① f_1 = \frac{F_y}{A_w} + \frac{M_x}{S_w} + \frac{M_z}{S_w} = \frac{10}{8} + \frac{1375}{5.33} = 353.03 \text{ lb/in}$$

$$② f_2 = \frac{F_x}{A_w} + \frac{M_y C}{S_w} = \frac{2}{8} + \frac{55(1)}{10.67} = 5.40 \text{ lb/in}$$

$$③ f_3 = \frac{F_z}{A_w} + \frac{M_y C}{S_w} = \frac{831}{8} + \frac{55(1)}{10.67} = 109.03 \text{ lb/in}$$

$$④ f_R = \sqrt{f_1^2 + f_2^2 + f_3^2} = 369.52 \text{ lb/in}$$

4) Determine size of weld (w)

$$w = \frac{f_R}{f_{allow}} = \frac{369.52}{(.3)(.707)(70,000)} = .025 \text{ in} < 3/16"$$

5) Summary

3/16" fillet weld meets AISC specs for this loading condition.

DESIGN CALCULATION

WHC-SD-WM-ER-390

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 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator B. J. Niemi Date 10-18-94
 (9) Checker H. H. Zick Date 10-21-94

(10)

Weld Joint Members ⑩ To ⑦

Given:

Critical Loads

$$\begin{aligned} F_x &= 76 \text{ Lb.} & M_x &= 5591 \text{ in-lb} \\ F_y &= 1636 \text{ Lb} & M_y &= 320 \text{ in-lb} \\ F_z &= 639 \text{ Lb} & M_z &= 2 \text{ in-lb} \end{aligned}$$

Member

⑦ 2x2x1/4 ASTM-A500-GRADE B CS

⑩ 4x2x1/4 ASTM-A500-GRADE B CS

1) Geometry of Weld

Inspection of truck shows weld to be on all 4 sides of connection.

2) Properties of Weld (Blodgett 1982) Treating weld AS A line

$$A_w = 2(2) + 2(4) = 12 \text{ in}$$

$$S_{wx} = bd + \frac{d^3}{3} = 9.33 \text{ in}^2 \quad \text{where } d=2 \text{ \& } b=4$$

$$S_{wz} = db + \frac{b^3}{3} = 13.33 \text{ in}^2$$

$$J_w = \frac{(b+d)^3}{6} = 36 \text{ in}^3$$

$$C_x = 1 \text{ in}$$

$$C_z = 2 \text{ in}$$

DESIGN CALCULATION

WHC-SD-WM-ER-390

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page Rev. 0 of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator BJ Niemi Date 10-18-94
 (9) Checker H.H. Zick Date 10-21-94

(10) Member ⑩ To ⑦

3) Determine Resultant Force on Weld (f_R)

Using superposition to get equations:

$$① f_1 = \frac{F_y}{A_w} + \frac{M_x}{S_{wx}} + \frac{M_z}{S_{wz}} = \frac{1636}{12} + \frac{5591}{9.33} + \frac{2}{13.33} = 735.73 \text{ lb/in}$$

$$② f_2 = \frac{F_x}{A_w} + \frac{M_y C_x}{S_w} = \frac{76}{12} + \frac{320(1)}{36} = 15.22 \text{ lb/in}$$

$$③ f_3 = \frac{F_z}{A_w} + \frac{M_y C_z}{S_w} = \frac{639}{12} + \frac{320(2)}{36} = 71.03 \text{ lb/in}$$

$$④ f_R = \sqrt{f_1^2 + f_2^2 + f_3^2} = 739.31 \text{ lb/in}$$

4) Determine weld size (w)

$$w = \frac{f_R}{f_{allow}} = \frac{739.31 \text{ lb/in}}{(.3)(.707)(70,000 \frac{\text{lb}}{\text{in}^2})} = 0.049 \text{ in} < \frac{3}{16} \text{''}$$

5) Summary

$\frac{3}{16}$ '' fillet weld meets AISC spec for the loading condition.

DESIGN CALCULATION

WHC-SD-WM-ER-390

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(1) Drawing H-2-41716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject SHIELDED METAL LIFTING FRAME ASSY
 (8) Originator L. Hudis Date 10/11/94 R1 10/18/94
 (9) Checker H.H. Zick Date 10-21-94

(10) WELD JOINT MEMBER ⑩ TO ACTUATOR (-1 FRAME)

T92 & T93

DEADWEIGHT LOADS

WITH M_2 RESTRAINT OF MEM. ⑬ AT ORILL RIG
 -1 FRAME

UP $P_A = 1662$ LBS

DWN $P_A = 1651$ LBS

WITHOUT M_2 RESTRAINT
 -1 FRAME

UP $P_A = 1662$ LBS

DWN $P_A = 1651$ LBS

Member

- ⑩ 4 x 2 x 1/4 ASTM-A36-GRACE B-CS
- ③② CYLINDER MOUNT, PL 5/8 THK x 1 5/8 x 4 ASTM-A36-CS
- ③③ Gusset, PL 3/8 THK x 4 x 6 ASTM-A36-CS

INPUT LOADS

$$P_A = \text{ACTUATOR LOAD} = 1662 \text{ LBF}$$

ANALYTICAL CALCULATIONS

Page ____ of ____

Subject _____
 Originator S.M. MILLER & M. Miller Date 10/18/94
 Checker H.H. Zisk Date 10-21-94

ANALYSIS

WITH ACTUATOR FORCE ACTING VERTICALLY UP,
 NO WELDS ARE STRESS BEARING (LUGS PUSH
 DIRECTLY ON TUBE STEEL BEAM).

IF ACTUATOR FORCE ACTS VERTICAL DOWN, FILLET
 WELDS CONNECTING LUGS TO TUBE STEEL &
 GUSSET PLATE LOAD. ASSUME ENTIRE ACTUATOR
 LOAD IS TAKEN BY ONE LUG & THE VERTICAL
 WELDS CONNECTING IT TO THE GUSSET PLATE

$$A_w = 2(1.625 \text{ in}) = 3.25 \text{ in}$$

$$f_R = \frac{P_A}{A_w} = \frac{1662}{3.25} = 511 \text{ lb/in}$$

Minimum Weld Size (w)

$$w = \frac{f_R}{f_{allow}} = \frac{511}{(.3)(.707)(70,000)} = 0.034 \text{ in} < \frac{1}{4} \text{ in}$$

CONCLUSION

ALL WELDS ARE GROSSLY OVERSIZED BASED
 ON WORKING STRESS, BUT DO MEET MINIMUM
 SPECIFICATIONS BASED ON MAT'L THICKNESS PER
 AISC. WELDS ARE PRE-QUALIFIED.

ANALYTICAL CALCULATIONS

Page ____ of ____

Subject DR. H-2-91716

Originator F. R. VOLBERT

Date 10/19/94

Checker H. H. Zick

Date 10-21-94

MEMBERS (4) AND (7) TO (11)

NORMAL OPERATION LOADS :

MEMBER (4) MAXIMUM CASE IS LIFTING FRAME DOWN
NO M_z RESTRAINT PRESUMED FOR THE FIXED
SUPPORT FRAME.

$$M_x = 7152 \text{ IN-LB}, M_y = 153 \text{ IN-LB}, M_z = 5569 \text{ IN-LB}$$

$$F_x = 0 \text{ LB}, F_y = 1150 \text{ LB}, F_z = 271 \text{ LB}$$

MEMBER (4) FILLET WELDED ON END ALL
AROUND AND FILLET WELDED TO THE GUSSET

ANALYTICAL CALCULATIONS

Page ____ of ____

Subject _____
Originator F.R. VOLLERT Date 10/19/94
Checker H.H. Zick Date 10-21-94

④ AND ⑦ TO ⑪ CONTINUED

GUSSET & WELDS RESISTS M_x , MEMBER ④

④ $b = d = 5.5$
 $J_x = \frac{(b+d)^4 - 6b^2d^2}{12(b+d)}$
 $J_x = \frac{11^4 - 6(5.5)^4}{12 \times 11} = 69.3 \text{ in}^3$

$\bar{y} = \bar{z} = \frac{d^2}{2(b+d)} = \frac{5.5^2}{2(11)} = 1.375 \text{ in}$

$r' = \sqrt{(1.375)^2 + (5.5 - 1.375)^2} = 4.35 \text{ in}$

WELD STRESS

$F_{y3} = \frac{M_x r'}{J_x} = \frac{7152 \times 4.35}{69.3} = 449 \text{ LB/in}$

1/8 MIN GUSSET & WELD OK

FILLET WELDS, END OF ④

WELD LENGTH = $4 \times 2 = 8 \text{ in}$

$S_x = S_y = bd + \frac{d^2}{3} = 4 + \frac{4}{3} = 5.33 \text{ in}^2$

$J_z = \frac{(d+b)^3}{6} = \frac{(4)^3}{6} = 10.66 \text{ in}^3$

$r' = \sqrt{2} \text{ in}$

WELD STRESSES

TORSIONAL SHEAR DUE TO M_z

$F_{xy} = \frac{M_z r'}{J_z} = \frac{5567 \times \sqrt{2}}{10.66} = 739 \text{ LB/in}$

ANALYTICAL CALCULATIONS

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Subject _____

Originator F.R. VOLTERTDate 10/19/94Checker H.H. ZuckDate 10-21-94MEMBER ④ AND ⑦ TO ⑪ CONTINUEDSHEAR STRESS y DIRECTION

$$F_{wy} = \frac{F_y}{8} = \frac{1150}{8} = 144 \text{ LB/IN}$$

STRESS z DIRECTION

$$F_{wz} = \frac{F_z}{8} = \frac{271}{8} = 34 \text{ LB/IN (AXIAL LOAD)}$$

$$F_z = \frac{M_y}{S_y} = \frac{153}{5.33} = 21 \text{ LB/IN (BENDING)}$$

$$F_z = 34 + 21 = 55 \text{ LB/IN}$$

$$\Sigma \sqrt{F_w^2} = \sqrt{739^2 + 144^2 + 55^2} = 755 \text{ LB/IN}$$

 $\frac{1}{8}$ " MIN FILLET AROUND END OF ④ OKWITH GUSSET RESISTING M_x

MEMBER ⑦ MAXIMUM CASE SAME AS ④

$$M_x = 1578 \text{ IN LB}, M_y = 569 \text{ IN LB}, M_z = 6295 \text{ IN LB}$$

$$F_x = 20 \text{ LB}, F_y = 1152 \text{ LB}, F_z = 165 \text{ LB}$$

ANALYTICAL CALCULATIONS

Page ____ of ____

Subject _____
Originator F.R. VOLBERT Date 10/20/94
Checker H.H. Zehn Date 10-21-94

④ AND ⑦ TO ⑪ CONTINUED

MEMBER ⑦ WELD SKETCH

$$\bar{y} = \frac{2 \times 1 + 1.5 \times 2 + 0}{7} = 0.71 \text{ in}$$

$$\bar{x} = \frac{0 + \frac{3.5^2}{2} + 1.5 \times 2.75}{7} = 1.46 \text{ in}$$

$$I_x = 3.5 \bar{y}^2 + \frac{2^3}{12} + 2 \times (1 - \bar{y})^2 + 1.5 (2 - \bar{y})^2$$

$$I_x = 5.1 \text{ in}^3$$

$$I_y = \frac{3.5^3}{12} + 3.5 \left(\frac{3.5}{2} - \bar{x} \right)^2 + 2 \bar{x}^2 + \frac{1.5^3}{12} + 1.5 (2.75 - \bar{x})^2$$

$$I_y = 10.91 \text{ in}^3$$

$$J_3 = I_x + I_y = 16.0 \text{ in}^3$$

$$r' = \sqrt{1.29^2 + 2.04^2} = 2.41 \text{ in}$$

WELD STRESSES ⑦

TORSIONAL SHEAR DUE TO M_3

$$F_{x,y} = \frac{M_3 r'}{J_3} = \frac{6245 \times 2.41}{16} = 941 \text{ LB/in}$$

SHEAR STRESS y DIRECTION

$$F_{w,y} = \frac{F_y}{7} = \frac{1152}{7} = 165 \text{ LB/in}$$

SHEAR STRESS x DIRECTION

$$F_{w,x} = \frac{F_x}{7} = \frac{20}{7} = 3 \Rightarrow \phi \text{ LB/in}$$

$$941 + 165 = 1106 \text{ LB/in}$$

ANALYTICAL CALCULATIONS

Page ____ of ____

Subject _____
Originator F.R. VOLVERT Date 10/20/94
Checker H.H. Zick Date 10-21-94

④ AND ⑦ TO ⑪ CONTINUED

WELD STRESSES ⑦ CONTINUED

BENDING STRESS Z DIRECTION

$$F_{Mx} = \frac{M_x (1.29)}{I_x} = \frac{1578 \times 1.29}{5.1} = 399 \text{ LB/IN}$$

$$F_{My} = \frac{M_y \times 2.04}{I_y} = \frac{569 \times 2.04}{10.91} = 106 \text{ LB/IN}$$

AXIAL STRESS

$$F_{wiz} = \frac{F_z}{7} = \frac{165}{7} = 24 \text{ LB/IN}$$

$$399 + 106 + 24 = 529 \text{ LB/IN}$$

$$\Sigma \sqrt{F_w^2} = \sqrt{1106^2 + 529^2} = 1226 \text{ LB/IN}$$

1/8" MIN FILLET WELDS FOR ⑦ OK

DESIGN CALCULATION

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(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator B.J. Niemi Date 10-18-94
 (9) Checker H.H. Zia Date 10-21-94

(10) Given:

Weld Joint Member (37) TO (37) Member
 2x2x1/4 ASTM A-36 CS

Critical Loads

$$\begin{aligned} F_x &= 0 & M_x &= 304 \text{ in} \cdot \text{lb} \\ F_y &= 6 \text{ lb} & M_y &= 505 \text{ in} \cdot \text{lb} \\ F_z &= 108 \text{ lb} & M_z &= 0 \end{aligned}$$

Inspection of Truck shows weld is on all four sides of connection.

1) Geometry of Weld

$$\begin{aligned} \frac{1.5}{2} &= 67.5^\circ \\ \theta &= 90 - 67.5 = 22.5^\circ \\ \cos 22.5^\circ &= \frac{2}{H} \\ H &= 2.16 \text{ in} \end{aligned}$$

2) Properties of Weld (Gladgett 1982)

Treating weld as a line.

$$A_w = 2(2) + 2(2.16) = 8.32 \text{ in}$$

$$S_{wx} = bd + \frac{d^2}{3} = 5.65 \text{ in}^2 \text{ where } b = 2.16" \text{ and } d = 2"$$

$$C_x = 1 \text{ in}$$

$$S_{wy} = bd + \frac{b^2}{3} = 5.88 \text{ in}^2$$

$$C_y = \frac{2.16}{2} = 1.08 \text{ in}$$

$$J_w = \frac{(b+d)^3}{6} = 12 \text{ in}^3$$

DESIGN CALCULATION

WHC-SD-WM-ER-390

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page Rev. 0f _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator B. J. Niemi Date 10-18-94
 (9) Checker H. H. Zick Date 10-21-94

(10) Members (37) To (37)

3) Determine Resultant Force (F_R) on Weld

Using superposition to get equations

$$\textcircled{1} f_1 = \frac{F_z}{A_w} + \frac{M_y}{S_{wy}} + \frac{M_x}{S_{wx}} = \frac{108}{8.32} + \frac{505}{3.88} + \frac{304}{3.65} = 152.67 \text{ lb/in}$$

$$\textcircled{2} f_2 = \frac{F_y}{A_w} + \frac{M_z C_y}{S_w} = \frac{6}{8.32} = .72 \text{ lb/in}$$

$$\textcircled{3} f_3 = \frac{F_x}{A_w} + \frac{M_z C_x}{S_w} = 0$$

$$\textcircled{4} f_R = \sqrt{f_1^2 + f_2^2 + f_3^2} = 152.67 \text{ lb/in}$$

4) Determine Size of Weld (w)

$$w = \frac{f_R}{f_{\text{allow}}} = \frac{152.67}{(.3)(70,000)} = 0.007 \text{ in} < 3/16"$$

5) Summary

3/16" pen weld meets AISC spec for this loading condition.

ANALYTICAL CALCULATIONS

WHC-SD-WM-ER-390
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Subject _____
Originator F.R. Volpert Date 10/20/94
Checker H.H. Zula Date 10-21-94

MEMBERS (37) AND (38) TO (11)
NORMAL OPERATIONAL LOADS

MEMBER (38) MAXIMUM CASE LIFTING FRAME UP NO M₃
WELD SKETCH: RESTRAINT PRESUMED FOR FIXED SUPPORT FRAME

$$l_1 = \frac{2}{\sin 26^\circ} = 4.56 \text{ in}$$

$$l_2 = \frac{l_1}{\cos 26^\circ} = 5.07 \text{ in}$$

$$l_x = \sqrt{l_2^2 - l_1^2} = 2.22 \text{ in}$$

$$l_1 + l_2 = 9.63 \text{ in}$$

$$\bar{y} = \frac{l_1^2}{2} + \frac{l_2 l_1}{2} = 2.28'' \quad \bar{x} = \frac{l_2 l_x}{l_1 + l_2} = 0.58 \text{ in}$$

ANALYTICAL CALCULATIONS

Page ____ of ____

Subject _____
Originator ER VOLERT Date 10/20/94
Checker H-H- Zink Date 10-21-94

(37) AND (38) TO (11) CONTINUED

(38) CONTINUED

$$I_x = 2 \frac{l_1^3}{12} + l_1 + l_2 \left(\frac{l_1}{2} - \bar{y} \right)^2 = 15.8 + 0 = 15.8 \text{ in}^3$$

$$I_y = \frac{l_x^3}{12} + l_1 \bar{x}^2 + l_x \left(\frac{l_x}{2} - \bar{x} \right)^2 = 3.07 \text{ in}^3$$

$$J_3 = I_x + I_y = 18.85 \text{ in}^3, \quad r' = \sqrt{2.28^2 + 1.64^2} = 2.81 \text{ in}$$

$$M_x = 114 \text{ in LB}, \quad M_y = 307 \text{ in LB}, \quad M_z = 981$$

$$F_x = 41.3, \quad F_y = 169 \text{ LB}, \quad F_z = 17 \text{ LB}$$

WELD STRESSES

TORSIONAL SHEAR, X-Y PLANE DUE TO M_z

$$F_{xy} = \frac{M_z r'}{J_3} = \frac{981 \times 2.81}{18.85} = 146 \text{ in LB}$$

SHEAR X, Y PLANE, DUE TO F_x, F_y

$$F_{xy} = \frac{F_x}{9.63} = \frac{41}{9.63} = 4 \text{ LB/in}$$

$$F_{yx} = \frac{F_y}{9.63} = \frac{169}{9.63} = 18 \text{ LB/in}$$

$$146 + 4 + 18 = 168 \text{ LB/in}$$

NORMAL STRESS Z DIRECTION DUE TO F_z, M_x, M_y

$$F_{wx} = \frac{F_z}{9.63} \Rightarrow \phi \text{ LB/in}$$

ANALYTICAL CALCULATIONS

Page _____ of _____

Subject _____

Originator F.R. VOLTERT

Date 10/20/94

Checker H.H. Zick

Date 10-21-94

(37) AND (38) TO (11) CONTINUED

(38) NORMAL STRESS CONTINUED

$$F_{Mx} = \frac{M_x \times 2.28}{I_x} = \frac{114 \times 2.28}{15.8} = 17 \text{ LB/IN}$$

$$F_{My} = \frac{M_y \times 1.64}{I_y} = \frac{307 \times 1.64}{3.07} = 164 \text{ LB/IN}$$

$$17 + 164 = 181 \text{ LB/IN}$$

$$\sqrt{F_w^2} = \sqrt{168^2 + 181^2} = 250 \text{ LB/IN}$$

$\frac{1}{8}$ " MIN FILLET OK FOR (38)

MEMBER (37) MAXIMUM LOAD SAME AS (38)

$$M_x = 375 \text{ IN LB}, M_y = 488 \text{ IN LB}, M_z = 78 \text{ IN LB}$$

$$F_x = 0, F_y = 11, F_z = 108$$

WELD SKETCH:

$$S_x = \frac{2^2 (2 \times 2.83 + 2)}{3 (2.83 + 2)} = 2.11 \text{ IN}^2$$

$$S_y = \frac{2.83 (2.83 + 6 \times 2)}{6} = 6.99 \text{ IN}^2$$

$$J_z = \frac{(2.83 + 2 \times 2)^3}{12} - \frac{2^2 (2.83 + 2)^2}{(2 \times 2.83 + 2)} = 14.37 \text{ IN}^3$$

ANALYTICAL CALCULATIONS

Page ____ of ____

Subject _____
Originator F. R. VALERT Date 10/19/94
Checker H. H. Zinda Date 10-21-94

(37) AND (38) TO (11) CONTINUED

(37) CONTINUED

$$r' = \sqrt{1.41^2 + 1.41^2} = 2.00 \text{ IN}$$

SHEAR STRESSES X, Y PLANE

$$\text{DUE TO } M_3 \quad F_{M_3} = \frac{M_3 r'}{J_3} = \frac{78 \times 2}{14.37} = 11 \text{ LB/IN}$$

$$\text{DUE TO } F_x \quad F_{xy} = \frac{F_x}{6.83} = 0$$

$$\text{DUE TO } F_y \quad F_{xy} = \frac{11}{6.83} \neq 0$$

$$X \text{ Y SHEAR} = 11 \text{ LB/IN} \neq 0$$

NORMAL STRESS Z DIRECTION

$$\text{DUE TO } F_z \quad F_{wz} = \frac{108 \text{ LB}}{6.83 \text{ IN}} = 16 \text{ LB/IN}$$

$$\text{DUE TO } M_y \quad F_{M_y} = \frac{488}{6.99} = 70 \text{ LB/IN}$$

$$\text{DUE TO } M_x \quad F_{M_x} = \frac{375}{2.11} = 178 \text{ LB/IN}$$

$$\Sigma F_w = 70 + 178 = 248 \text{ LB/IN}$$

$\frac{1}{8}$ MINIMUM FILLET OK

DESIGN CALCULATION

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(1) Drawing H-2-9171a (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
(8) Originator L. Hyde Date 10/11/94 RI 10/18/94
(9) Checker H-H-Zirka Date 10-21-94

(10) WELD JOINT MEMBER (17) TO ROLLER (-2 FRAME)

Analysis

$$A_w = 2(3/8) + 4(3/8) = .75 \text{ in}$$

$$f_R = \frac{P_R}{A_w} = \frac{378 \text{ lbs}}{.75 \text{ in}} = 504 \text{ lb/in}$$

Size of Weld (w)

$$w = \frac{f_R}{f_{allow}} = \frac{504}{(.3)(.707)(70,000)} = 0.034 \text{ in} < 1/4"$$

Summary

Working stress requires a fillet weld less than 1/4",
however, based on thickness of the member,
AISC specs require minimum fillet weld of 3/16".

DESIGN CALCULATION

WHC-SD-WM-ER-390

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page Rev. 00
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator BJ Niemi Date 10-18-94
 (9) Checker H. H. Zick Date 10-21-94

(10) Given:

Weld Joint Members ⑪ To ⑫

Critical Loads

$$\begin{aligned} F_x &= 74 \text{ lb} & M_x &= 969 \text{ in. lb} \\ F_y &= 369 \text{ lb} & M_y &= 60 \text{ in. lb} \\ F_z &= 19 \text{ lb} & M_z &= 1509 \text{ in. lb} \end{aligned}$$

Member

⑪ Channel MC 6x12.0 ASTM A-36 C3

⑫ 3x2x1/4 ASTM-A500-GRADE B-C5

1) Geometry of Weld

2) Properties of Weld (Blodgett 1982)

Treating weld as a line

$$A_w = 2(3) + 2(2.497) = 11.0 \text{ in}$$

$$S_{wz} = bd + \frac{d^3}{3} = 10.49 \text{ in}^2 \text{ where } d = 3" \text{ \& } b = 2.497"$$

$$C_z = \frac{3}{2} = 1.5 \text{ in}$$

$$S_{wy} = db + \frac{b^3}{3} = 9.57 \text{ in}^2$$

$$C_y = \frac{2.497}{2} = 1.25 \text{ in}$$

$$J_w = \frac{(b+d)^3}{6} = 27.66 \text{ in}^3$$

DESIGN CALCULATION

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 (7) Subject Shielded Rodsivee Lifting Frame Assy
 (8) Originator B. J. Niemi Date 10-18-94
 (9) Checker H. H. Zinda Date 10-21-94

(10) Members (17) To (12)

3) Determine Resultant Force (f_R) on Weld

Using Superposition to get equations

$$\begin{aligned} \textcircled{1} f_1 &= \frac{F_x}{A_w} + \frac{M_z}{S_{wz}} + \frac{M_y}{S_{wy}} = \frac{74}{11.0} + \frac{1509}{0.49} + \frac{60}{9.57} = 156.85 \text{ lb/in} \\ \textcircled{2} f_2 &= \frac{F_y}{A_w} + \frac{M_x C_y}{J_w} = \frac{369}{11.0} + \frac{969(1.25)}{27.68} = 77.30 \text{ lb/in} \\ \textcircled{3} f_3 &= \frac{F_z}{A_w} + \frac{M_x C_z}{J_w} = \frac{19}{11.0} + \frac{969(1.5)}{27.68} = 54.24 \text{ lb/in} \\ \textcircled{4} f_R &= \sqrt{f_1^2 + f_2^2 + f_3^2} = 183.09 \text{ lb/in} \end{aligned}$$

4) Determine weld size (w)

$$w = \frac{f_R}{F_{allow}} = \frac{183.09}{(3)(707)(70,000)} = 0.012 \text{ lb/in} < \frac{3}{16}''$$

5) Summary

$\frac{3}{16}''$ fillet weld meets AISC specs for this loading condition.

DESIGN CALCULATION

WHC-SD-WM-ER-390

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page Rev. 0 of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator BJ Niemi Date 10-18-94
 (9) Checker H.H. Zinda Date 10-21-94

Given:
 (10) Weld Joint Members 12 TO 15

Critical LOADS

$$\begin{aligned} F_x &= 74 \text{ lb} & M_x &= 698 \text{ in} \cdot \text{lb} \\ F_y &= 382 \text{ lb} & M_y &= 177 \text{ in} \cdot \text{lb} \\ F_z &= 25 \text{ lb} & M_z &= 51 \text{ in} \cdot \text{lb} \end{aligned}$$

Member

- 12 3x2x1/4 ASTM-A500-GRADE B-CS
 15 2x2x1/4 ASTM-A500-GRADE B-CS

1) Geometry of weld

Assume: Forces are acting in plane of weld.

2) Properties of weld (Blodgett 1982) Treating weld as a line.

$$A_w = 2(4) = 8 \text{ in}$$

$$S_w = bd + \frac{d^3}{3} = 5.33 \text{ in}^2$$

$$J_w = \frac{(b+d)^3}{6} = 10.67 \text{ in}^3$$

$$C = 1 \text{ in}$$

$$R = 2t = 2(.25) = .50 \Rightarrow \text{Radius of curve of member (AISC 1989)}$$

DESIGN CALCULATION

WHC-SD-WM-ER-390

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page 0 of _____
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 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator B. J. Niemi Date 10-18-94
 (9) Checker H. H. Zick Date 10-21-94

(10) Members (12) To (13)

3) Determine Resultant Force (F_R) on Weld

Using Superposition of apt Equations:

$$① f_1 = \frac{F_y}{A_w} + \frac{M_x}{S_w} + \frac{M_z}{S_w} = \frac{382}{8} + \frac{698}{5.33} + \frac{51}{5.33} = 188.28 \text{ lb/in}$$

$$② f_2 = \frac{F_x}{A_w} + \frac{M_y C}{J_w} = \frac{74}{8} + \frac{177(1)}{10.67} = 25.84 \text{ lb/in}$$

$$③ f_3 = \frac{F_z}{A_w} + \frac{M_y C}{J_w} = \frac{25}{8} + \frac{177(1)}{10.67} = 19.71 \text{ lb/in}$$

$$④ f_R = \sqrt{f_1^2 + f_2^2 + f_3^2} = 191.06 \text{ lb/in}$$

4) Determine Size of Weld (w)

$$w = \frac{F_R}{f_{allow}} = \frac{191.06}{(.3)(70,000)} = 0.0091 \text{ in} < 5/16 \text{ R} = 0.156 \text{ in}$$

5) Summary

3/16" fillet weld meets AISC spec. for this loading condition.

DESIGN CALCULATION

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(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page _____ of _____
(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject Shielded Receiver Lifting Frame Assy
(8) Originator BJ Niemi Date 10-18-94
(9) Checker H.H. Zaiti Date 10-21-94

Given: Weld Joint Members (13) To (14)

Critical Loads

$$F_x = 413 \text{ lb}$$

$$M_x = 54 \text{ in}\cdot\text{lb}$$

$$F_y = 3 \text{ lb}$$

$$M_y = 584 \text{ in}\cdot\text{lb}$$

$$F_z = 25 \text{ lb}$$

$$M_z = 317 \text{ in}\cdot\text{lb}$$

Members

(14) $2 \times 2 \times \frac{1}{4}$ ASTM - A500 - GRADE B - CS

(13) $2 \times 2 \times \frac{1}{4}$ ASTM - A500 - GRADE B - CS

1) Geometry of Weld

2) Properties of Weld (Blodgett 1982)

Treating the weld as a line

$$A_w = 4(2) = 8 \text{ in}$$

$$S_w = bd + \frac{d^3}{3} = 5.33 \text{ in}^2$$

$$C = \text{lin}$$

$$\bar{J}_w = \frac{(b+d)^3}{6} = 10.67 \text{ in}^3$$

DESIGN CALCULATION

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(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject Shielded Receiver Lifting Frame Assy
(8) Originator B. J. Niemi Date 10-18-74
(9) Checker H. H. Zick Date 10-21-74

(10) Member 13 To 14

3) Determine Resultant Force (F_R) on Weld

Using Superposition to get equations.

$$① f_1 = \frac{F_x}{A_w} + \frac{M_y}{S_w} + \frac{M_z}{S_w} = \frac{413}{8} + \frac{584}{5.33} + \frac{317}{5.33} = 220.67 \text{ lb/in}$$

$$② f_2 = \frac{F_y}{A_w} + \frac{M_x C}{S_w} = \frac{3}{8} + \frac{54(1)}{10.67} = 5.44 \text{ lb/in}$$

$$③ f_3 = \frac{F_z}{A_w} + \frac{M_x C}{S_w} = \frac{25}{8} + \frac{54(1)}{10.67} = 8.19 \text{ lb/in}$$

$$④ f_R = \sqrt{f_1^2 + f_2^2 + f_3^2} = 220.89 \text{ lb/in}$$

4) Determine Size of weld (w)

$$w = \frac{f_R}{f_{allow}} = \frac{220.89}{(.3)(.707)(70,000)} = 0.015 \text{ in} < 3/16''$$

5) Summary

3/16" fillet weld meets AISC specs for this loading condition.

DESIGN CALCULATION

WHC-SD-WM-ER-390

(1) Drawing H-2-91716 (2) Doc. No. _____ (3) Page Rev. 0 of _____
 (4) Building N/A (5) Rev. _____ (6) Job No. _____
 (7) Subject Shielded Receiver Lifting Frame Assy
 (8) Originator BJ Niemi Date 10-18-94
 (9) Checker H.H. Zink Date 10-21-94

Given:

(10) Weld Joint Member (14) To Drill Rig

Critical Loads

$$\begin{aligned} F_x &= 24 \text{ lb} & M_x &= 299 \text{ in}\cdot\text{lb} \\ F_y &= 417 \text{ lb} & M_y &= 58 \text{ in}\cdot\text{lb} \\ F_z &= 31 \text{ lb} & M_z &= 1923 \text{ in}\cdot\text{lb} \end{aligned}$$

Member

(14) $2 \times 2 \times 1/4$ ASTM-A500-GRADE B-CS

1) Geometry of Weld

2) Properties of Weld (Blodgett 1982)

Treating the weld as a line:

$$A_w = 4(2) = 8 \text{ in}$$

$$S_w = bd + \frac{d^3}{3} = 5.33 \text{ in}^2$$

$$J_w = \frac{(b+d)^3}{6} = 10.67 \text{ in}^3$$

$$C = 1 \text{ in}$$

DESIGN CALCULATION

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(4) Building N/A (5) Rev. _____ (6) Job No. _____
(7) Subject Shielded Receiver Lifting Frame Assy
(8) Originator BJ Niemi Date 10-18-94
(9) Checker H.H. Zide Date 10-21-94

(10) Member (14) To Drill Via

3) Determine Resultant Force (F_R) on Weld

Using Superposition to get equations:

$$\textcircled{1} f_1 = \frac{F_x}{A_w} + \frac{M_y}{S_w} + \frac{M_z}{S_w} = \frac{24}{8} + \frac{58}{5.33} + \frac{1923}{5.33} = 374.67 \text{ lb/in}$$

$$\textcircled{2} f_2 = \frac{F_y}{A_w} + \frac{M_x C}{S_w} = \frac{417}{8} + \frac{299}{10.67} = 80.15 \text{ lb/in}$$

$$\textcircled{3} f_3 = \frac{F_z}{A_w} + \frac{M_x C}{S_w} = \frac{3}{8} + \frac{299}{10.67} = 28.40 \text{ lb/in}$$

$$\textcircled{4} f_4 = \sqrt{f_1^2 + f_2^2 + f_3^2} = 384.20 \text{ lb/in}$$

4) Determine size of weld (w)

$$w = \frac{F_R}{f_{allow}} = \frac{384.20}{(3)(707)(70000)} = 0.026 \text{ in} < 3/16"$$

5) Summary

$3/16"$ fillet weld meets AISC specs for this loading condition.

DESIGN CALCULATION

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(7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
(8) Originator L. Hyde Date 10/19/94
(9) Checker H-H. Linn Date 10-21-94

(10) WELD JOINT - MEMBERS 17 TO 13 (-2 FRAME)

POSITION OF -1 FRAME	F_x	F_y	F_z	M_x	M_y	M_z
WITH M_z RESTRAINT OF MEMBER 13 TO DRILL RE						
UP	-34	112	-13	-21	11	2625
DOWN	-41	147	92	324	55	2205
WITHOUT M_z RESTRAINT						
UP	-74	303	-14	326	14	-150
DOWN	-74	305	102	558	60	-150

FORCES = LBS. MOMENT = IN-LB.

ANALYTICAL CALCULATIONS

WHC-SD-WM-ER-390
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Subject H2-91715 & H-2-91716Originator F.R. [unclear]Date 10/20/94Checker H.H. ZickDate 10-21-94

MEMBER (17) TO (13)

NORMAL OPERATIONAL LOADS WITH M_2 RESTRAINT
FOR FIXED SUPPORT FRAME, LIFTING FRAME UP

$$M_x = 21 \text{ IN LB}, M_y = 11 \text{ IN LB}, M_z = 2628 \text{ IN LB}$$

$$F_x = 34 \text{ LB}, F_y = 112 \text{ LB}, F_z = 18 \text{ LB}$$

JOINT FILLET WELD ALL AROUND END OF MEMBER
(17) $ML 6 \times 12$ TO MEMBER (13) TUBE $6 \times 4 \times \frac{1}{4}$ AS
SKETCHED BELOW

$$b = 2.5 \text{ IN}, d = 6.0 \text{ IN}$$

USE DOUBLE WELD SIZE BECAUSE
FILLET IS ALL AROUND.

$$S_x = \frac{b^2(2d+b)}{3(d+b)} = 3.55 \text{ IN}^2$$

$$S_z = \frac{d}{6}(6b+d) = 21.0 \text{ IN}^2$$

 $M_y = 11 \text{ IN LB} \Rightarrow \phi$ NO NEED FOR J_y THIS LOAD CASE

$$\text{TOTAL WELD LENGTH} = 6 + 5 = 11 \text{ IN}$$

SHEAR STRESSES: X-Z PLANE

$$\text{DUE TO } F_x, F_{xz} = \frac{34}{11} = 3 \text{ LB/IN} \Rightarrow 0$$

$$\text{DUE TO } F_z, F_{zx} = \frac{18}{11} = 2 \text{ LB/IN} \Rightarrow 0$$

NORMAL STRESSES IN Y DIRECTION

$$\text{DUE TO } F_y, F_{wy} = \frac{112}{11} = 10 \text{ LB/IN}$$

$$\text{DUE TO } M_x, F_{mx} = \frac{21}{3.55} = 6 \text{ LB/IN}$$

$$\text{DUE TO } M_z, F_{mz} = \frac{2628}{21} = 125 \text{ LB/IN}$$

$$\Sigma F_w = 10 + 6 + 125 = 141 \text{ LB/IN } \frac{1}{8} \text{ MIN FILLET OK}$$

$$t_w = \frac{141}{14,800} = 0.01 \text{ IN}$$

DESIGN CALCULATION

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 (7) Subject _____
 (8) Originator L. Hyde Date 10/11/94 121 10/18/94
 (9) Checker H.H. Zinda Date 10-21-94

(10) WELD JOINT - MEMBER (13) TO DRILL RIG (CONT'D)

REACTIONS @ JOINTS

F_x (Lb)	F_y (Lb)	F_z (Lb)	M_z (in-Lb)
---------------	---------------	---------------	------------------

Deadweight LOADS

with M_z Restraint of Member (13) To Drill Rig

-1 Frame	J70	34	-80	18	2560
	J71	34	-78	18	2553
UP	J70	41	116	92	2123
	J71	41	115	92	2119

Without M_z Restraint

up	J70	74	-272	14	—
	J71	74	-270	-14	—
DWN	J70	74	-273	-102	—
	J71	74	-272	102	—

ANALYTICAL CALCULATIONS

Page ____ of ____

Subject H-2-31715 & H-2-31716

Originator F.R. VALLEY

Date 10/20/94

Checker H.H. Zuh

Date 10-21-94

MEMBER (13) TO RIG
NORMAL OPERATIONAL LOADS

MAXIMUM CASE OCCURS WITH M_2 RESTRAINT
PRESUMED AT THIS LOCATION, $M_2 = 2560$ IN LB
FOR LIFT FRAME UP, ALL OTHER JOINT FORCES $\Rightarrow 0$

PRESUME CENTER OF M_2 ROTATION AT C (13)
 M_2 RESTRAINT PROVIDED BY FILLET WELD TO
C 5x9.

$$S_3 = \frac{d^2}{3} = 12 \text{ in}^2$$

FOR WELD $J_3 = \frac{6^3}{12} + 6 \times 2^2 = 42 \text{ in}^3$

$$r' = \sqrt{9 + 4} = 3.6 \text{ in}$$

$$\text{WELD STRESS} = \frac{M_3}{J_3} = \frac{2560}{12} = 213 \text{ LB/IN}$$

$\frac{1}{8}$ " MIN FILLET OK

OR:

$$M_3 = P \cdot \frac{2}{3} \cdot 6 = 2560$$

$$P = 640 \text{ LB}$$

$$P = \frac{F_w \times 6}{2}, F_w = \frac{640}{3}$$

WELD LOAD DIAGRAM

MAX WELD STRESS

$$F_w = 213 \text{ LB/IN} \approx 213 \text{ LB/IN}$$

$$W = \frac{213}{14,300} = 0.015 \text{ B-40}$$

DESIGN CALCULATION

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(7) Subject SHIELDED RECEIVER LIFTING FRAME ASSY
(8) Originator L. Hyde Date 10/11/94 RI 10/18/94
(9) Checker H.H. Zida Date 10-21-94

(10) WELD JOINTS - MEMBERS 17 & 13 TO DRILL RIG

DEADWEIGHT LOADS

WITH M_z RESTRAINT OF MEMBER 13 TO DRILL RIG

-1 FRAME

UP $P_A = 1662 \text{ LB.}$

DWN $P_A = 1651 \text{ LB.}$

WITHOUT M_z RESTRAINT

-1 FRAME

UP $P_A = 1662 \text{ LB.}$

DWN $P_A = 1651 \text{ LB.}$

RI

TRANSPORT LO: $Y = 1.136 \text{ (DWN)}, X = 0.436 \text{ (FLA)}, Z = 0.376 \text{ (LEFT)}$

ACTUATORS GROUNDED AT N73 & N74, MEMBERS B56, B57, B58 & B59 DELETED

$P_A = 2712 \text{ LBS}$ WITH M_z RESTRAINT OF MEMBER 13
AT DRILL RIG

$P_A = 2859 \text{ LBS}$ WITHOUT M_z RESTRAINT

B-41

ANALYTICAL CALCULATIONS

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Subject H-2-91715
Originator F.R. VOLBERT Date 10/19/94
Checker H.H. Tiedje Date 10-21-94

ACTUATOR SUPPORT CONTINUED

Weld size $t_w = \frac{636}{14,800} = 0.043 \text{ in} < 0.25 \text{ in}$ OKAY

[WELD AT C 5x9]

DIMENSIONS $b, d, \bar{z}$ APPROXIMATE
PER SECTION C 5x9

$b = 1.885 \text{ in}$

$d = 5.00 \text{ in}$

$\bar{z} = 0.478 \text{ in}$

$F_y = P_A = 1662 \text{ LB}$

$M_z = P_A \times 6.75'' = 11218 \text{ IN LB}$

$M_x = P_A (5.75 - \bar{z}) = 8762 \text{ IN LB}$

WELD STRESSES

y DIRECTION, SHEAR

$F_{wy} = \frac{P_A}{2b+d} = \frac{1662}{8.770} = 190 \text{ LB/in}$

x DIRECTION, BENDING

$F_{wx} = \frac{M_z}{S_z} \quad S_z = \frac{d}{6} (6b+d) = 13.6 \text{ in}^2$

$F_{wx} = \frac{11218}{13.6} = 825 \text{ LB/in}$

y, z DIRECTION, TORSIONAL SHEAR

$F_{wz} = \frac{M_x r'}{J_w} \quad J_w = \frac{(2b+d)^3}{12} - \frac{b^2(d+b)^2}{(2b+d)} = 37.0 \text{ in}^4$

$(r')^2 = (1.885 - 0.478)^2 + (2.5)^2, \quad r' = 2.87$

$F_{wz} = \frac{8762 \times 2.87}{37} = 680 \text{ LB/in}$

ANALYTICAL CALCULATIONS

Page ____ of ____

Subject H-2-91715
Originator F. R. VOLBERT Date 10/19/94
Checker H. H. Zind Date 10-21-94

ACTUATOR SUPPORT CONTINUED

FOR C 5x9 WELD

$$\sum \sqrt{F^2} = \sqrt{130^2 + 825^2 + 630^2} = 1089 \text{ LB/W}$$

$$t_w = \frac{1089}{14,800} = 0.074 \text{ in} < 0.25 \text{ in} \quad \text{OKAY}$$